



GeoInsight, Inc.  
25 Sundial Avenue, Suite 515 West  
Manchester, NH 03103  
TEL 603-314-0820  
FAX 603-314-0821  
[www.geoinsightinc.com](http://www.geoinsightinc.com)

GeoInsight, Inc.  
5 Lan Drive, Suite 200  
Westford, MA 01886  
TEL 978-692-1114  
FAX 978-692-1115

GeoInsight, Inc.  
Corporate Ten Center  
1781 Highland Avenue, Suite 207  
Cheshire, CT 06410  
TEL 203-271-8036  
FAX 203-271-8038

MAG910186

January 11, 2006

GeoInsight Project 3255-000

United States Environmental Protection Agency  
Remediation General Permit  
Municipal Assistance Unit (CMU)  
1 Congress Street, Suite 1100  
Boston, Massachusetts 02114-2023

Re: Remediation General Permit  
Mr. Mike's Mobil  
1274 Main Street  
Ashby, Massachusetts  
**MADEP RTN No. 2-0000011**  
**Former Tier 1A Permit No. 84825**  
**NPDES Permit Exclusion Reference #99-193**

JAN 17 2006

Dear Sir/Madam:

GeoInsight, Inc., on behalf of Peterborough Oil Company, Inc., is providing a response to the Notice of Availability of the Remediation General Permit (RGP) –MAG910000 or NHG910000 dated September 15, 2005 and additional information in support of a RGP for the Mr. Mike's Mobil property located at 1274 Main Street in Ashby, Massachusetts. This letter is intended to notify the United States Environmental Protection Agency (USEPA) that the existing application for an individual National Pollutant Discharge Elimination Systems (NPDES) permit for the Site remains valid. A copy of the completed original NPDES permit application, including Forms 1 and 2C and As-Built Drawings and Diagrams, is included in Attachment A.

The historical release of gasoline associated with this property has been monitored since activation of the original ground water treatment system in August 1999 and modified ground water treatment system in January 2003, in accordance with the NPDES Permit Exclusion #99-193. The NPDES Exclusion was issued to Peterborough Oil Co., Inc., owner of the release site, and a copy of the permit is included as Attachment B.

The objective of the bedrock ground water pump and treat remedial system operation was to inhibit migration of dissolved phase hydrocarbons, primarily methyl-tert-butyl ether (MTBE), in the bedrock ground water and to minimize further migration of petroleum impacts from a historical release of gasoline. The ground water treatment system, originally designed and activated in August 1999 was retrofitted and re-activated in January 2003. Currently, ground water is extracted from one 6-inch diameter bedrock extraction well (GT-4B) and treatment

consists of one bag filter and two liquid-phase granular activated carbon (LGAC) units plumbed in series. The bag filter is located in-line prior to the LGAC units and includes a 25-micrometer-filtering unit. Two vessels, each containing approximately 500 pounds of reactivated LGAC, are used to treat the extracted ground water prior to discharge. Treated water is discharged to a catch basin located north of the treatment shed on the neighboring property (Lot 49). The catch basin discharges southwest of Lot 49 to an un-named river. A Site Locus Plan (Figure 1), Site Plan showing the discharge location (Figure 2), and Soil Vapor Extraction, Air Sparging and Ground Water Pumping System diagram (Figure 3) are included as Attachment C.

As required by the NPDES Permit Exclusion, samples have been collected monthly from the treatment system influent, midpoint, and effluent points. The samples were analyzed for benzene, toluene, ethylbenzene, xylenes, methyl-tertiary-butyl-ether, and naphthalene by USEPA Method 8260B. Influent and effluent samples for each sampling event were also submitted and analyzed for total petroleum hydrocarbons by USEPA Method 8015, for gasoline range organics, and total suspended solids by USEPA Method 160.2. Historical analytical results are summarized and compared with the established permit discharge limits in Table 1. A copy of these results and a graphical representation of the mass removal of volatile organic compounds removed by the treatment system are included in Attachment D.

If you have questions regarding the information contained herein, please contact us at (603) 314-0820.

Sincerely,  
GEOINSIGHT, INC.



Amber L. Ahles  
Project Manager/Project Engineer



Michael F. Dadey, P.G., L.S.P.  
Associate/Senior Hydrogeologist

Enclosures

cc: Timothy Petersen, Peterborough Oil Company, Inc.  
Robert Adler, MADEP, Central Regional Office  
Marja-Leena LePoer, Ashby Public Library, Local Information Repository  
Ashby Board of Health  
James Garrefffi, Nashoba Associated Boards of Health  
Williams & Ross

P:\3255 POC Ashby\NPDES\RGP Letter.doc





GeoInsight, INC.

---

**ATTACHMENT A**  
**USEPA NPDES PERMIT APPLICATION**  
**FEBRUARY 25, 2000**

# COPY



## LETTER OF TRANSMITTAL

DATE: February 25, 2000

Via: Certified Mail

TO: USEPA Region 1  
ADDRESS 1 Congress Street, Suite 1100  
CITY Boston, MA 02114-2023  
ATTENTION: Olga Vergara, CMU

We are sending you:  Herewith       Under separate cover       Prints  
 Tracings       Specifications       Other

Attached is a USEPA NPDES Permit Application, Forms 1 and 2C, with attachments for Mr. Mikes Mobil,  
1274 Main Street, Ashby, MA. MADEP (RTN #2-0000011, Tier 1A Permit #84825).

These are: (as checked below)

- |   |   |
|---|---|
| <input type="checkbox"/> Approved   | <input checked="" type="checkbox"/> For your approval |
| <input type="checkbox"/> Not approved                                     | <input type="checkbox"/> For review and comment       |
| <input type="checkbox"/> No exceptions                                    | <input type="checkbox"/> Per your request             |
| <input type="checkbox"/> Make corrections observed                        | <input type="checkbox"/> For use on job               |
| <input type="checkbox"/> Revise and resubmit                              | <input checked="" type="checkbox"/> For your files    |
| <input type="checkbox"/> Return <input type="checkbox"/> corrected copies | <input type="checkbox"/> For your signature           |

Remarks Please contact the undersigned if you have any questions or need additional information.

If enclosures received are not as listed above, please notify at once.

copy: Tim Peterson, POC  
Maija-Leena LePoer, Ashby Public Library  
Ashby Board of Health, Ashby Con Com

Very truly yours,  
IT Corporation

By

Jeffrey R. LaCroix  
Project Manager

FORM



U.S. ENVIRONMENTAL PROTECTION AGENCY  
**GENERAL INFORMATION**  
Consolidated Permits Program  
(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

S	1	1	1	T/A/C
F				D

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (*the area to the left of the label space lists the information that should appear*), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

GENERAL  
LABEL ITEMS  
EPA I.D. NUMBER

Mr. Mike's Mobil

Peterborough Oil Co.  
165 North Main Street  
Leominster, MA 01453

274 Main Street  
Ashby, MA 01431

PLEASE PLACE LABEL IN THIS SPACE

POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK X:			SPECIFIC QUESTIONS	MARK X:		
	YES	NO	FORM ATTACHED		YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)	X			B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)	X		
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)	X	X		D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)	X		
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)	X			F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)	X		
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)	X			H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)	X		
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)	X			J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)	X		
40 41 42	43 44 45	46 47 48	49 50 51	52 53 54	55 56 57	58 59 60	61 62 63

NAME OF FACILITY

MR. MIKE'S MOBIL

16 29 30

69

FACILITY CONTACT

A. NAME & TITLE (last, first, & title)

B. PHONE (area code & no.)

TIM PETERSEN V.P.-P.O.C.

978 534 6587

49 44 - 48 49 - 51 52 - 55

FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

PETERBOROUGH OIL 665 N. MAIN ST.

45

B. CITY OR TOWN

C. STATE

D. ZIP CODE

LEOMINSTER

MA

01453

46

41

42

47

48

49

FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

1274 MAIN STREET

45

B. COUNTY NAME

EDDLES EX

70

C. CITY OR TOWN

D. STATE

E. ZIP CODE

F. COUNTY CODE  
(if riot open)

ASHBY

MA

01431

50

51

52

53

54

55

CONTINUED FROM THE FRONT

II. SIC CODES (4-digit, in order of priority)

A. FIRST		B. SECOND	
5 5 4 1	(specify)	7	(specify)
Gasoline Station With Convenience Store			
C. THIRD		D. FOURTH	
1 1	(specify)	7	(specify)
1 1	1 1	1 1	1 1

III. OPERATOR INFORMATION

A. NAME				B. Is the name listed in Item VIII-A also the owner?			
PETERBOROUGH OIL COMPANY				<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)				D. PHONE (area code & no.)			
F = FEDERAL S = STATE P = PRIVATE	M = PUBLIC (other than federal or state) O = OTHER (specify)	P	(specify)	C A 15	5 0 8	5 3 4	6 5 8 7
16	17	18	19	20	21	22	23

E. STREET OR P.O. BOX

65. NORTH MAIN STREET				F. CITY OR TOWN				G. STATE	H. ZIP CODE	I. INDIAN LAND
				LEOMINSTER				M A	0 1 4 5 3	Is the facility located on Indian lands?
16	17	18	19	20	21	22	23	24	25	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)				D. PSD (Air Emissions from Proposed Sources)				E. OTHER (specify)			
T	I	N		C	T	I		9	P		
16	17	18	19	20	21	22	23	24	25	26	27
B. UIC (Underground Injection of Fluids)				E. OTHER (specify)				(specify)			
U				9	8	4	8	2	5		
16	17	18	19	20	21	22	23	24	25	26	27
C. RCRA (Hazardous Wastes)				E. OTHER (specify)				MADEP TIER 1A			
R				C	T	I		9			
16	17	18	19	20	21	22	23	24	25	26	27

I. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

II. NATURE OF BUSINESS (provide a brief description)

See Attachment A

III. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME & OFFICIAL TITLE (type or print)

B. SIGNATURE

C. DATE SIGNED

Tim Petersen V.P.



2-17-00

COMMENTS FOR OFFICIAL USE ONLY

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (copy from Item 1 of Form 1)

UMR NO. 2040-0000  
Approval expires 7-31-88

**FORM  
2C  
NPDES**



**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER**  
**EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS**  
*Consolidated Permits Program*

## I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

## **III. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES**

- A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

YES (complete the following table)

NO (go to Section III)

1. OUTFALL NUMBER (list)	2. OPERATION/s) CONTRIBUTING FLOW (list)	3. FREQUENCY		4. FLOW				5. DURATION (in days)
		a. DAYS PER WEEK (specify average)	b. MONTHS PER YEAR (specify average)	8. FLOW RATE (in mgd)	9. TOTAL VOLUME (specify with units)	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	
	Not Applicable							

#### D. PRODUCTION

1. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

YES (complete Item III-B)

NO (go to Section IV)

2. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)?

YES (complete Item III-C)

NO (go to Section IV)

3. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION			2. Affected Outfalls (list outfall numbers)
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (specify)	
		Not Applicable	

#### E. IMPROVEMENTS

Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of waste water treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

YES (complete the following table)

NO (go to Item IV-B)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. Affected Outfalls		3. BRIEF DESCRIPTION OF PROJECT	4. Final Compliance Date	
	a. No.	b. SOURCE OF DISCHARGE		e. RE- QUIRED	f. PRO- JECTED
NPDES Permit Exclusion No. 99-193 (6/29/99)	A	Ground Water Treatment System	See Attachments A & B		

OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.  MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

CONTINUED FROM PAGE 2

## WATER AND EFFLUENT CHARACTERISTICS

B. & C: See instructions before proceeding — Complete one set of tables for each outfall — Annotate the outfall number in the space provided.  
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
Xylene	<p>Petroleum release (gasoline)</p> <p>Influent analytical results show a maximum concentration of Total Xylenes of 125 µg/L.</p> <p>Effluent analytical results remain below detection limits.</p> <p>(See attachment C)</p>		

## I. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

YES (list all such pollutants below)

NO (go to Item VI-B)

Not Applicable

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

YES (identify the test(s) and describe their purposes below)

NO (go to Section VIII)

Not Applicable

CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

YES (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)

NO (go to Section IX)

A. NAME	B. ADDRESS	C. TELEPHONE (area code & no.)	D. POLLUTANTS ANALYZED (list)
Eastern Analytical, Inc	25 Chenell Drive, Concord, NH 03301	603/228-0525	Method 8100M Method 8021B

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to insure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME & OFFICIAL TITLE (type or print)

Tim Petersen  
J.P.  
SIGNATURE  
*T. Petersen*

B. PHONE NO. (area code & no.)

978-534-6587

D. DATE SIGNED

EASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of the information on separate sheets (use the same format) instead of completing these pages.

**E. INSTRUCTIONS**

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each pollutant in this table. Complete one table for each outfall. See Instructions for additional details.

E. INFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

POLLUTANT	2. EFFLUENT		3. UNITS (specify if blank)		4. INTAKE (optional)	
	a. MAXIMUM DAILY VALUE	b. MAXIMUM DAILY VALUE (if available)	c. LONG TERM AVERAGE VALUE	d. NO. OF ANALYSES	e. CONCEN- TRATION	f. NO. OF ANALYSES
(1) MASS CONCENTRATION	(1) MASS	(1) MASS	(1) MASS	(1) MASS CONCENTRATION	(1) MASS	
Biochemical Oxygen Demand (BOD)	N/A					
Chemical Oxygen Demand (COD)	N/A					
Total Organic Carbon (TOC)	N/A					
Total Suspended Solids (TSS)	N/A					
Amonia (as N)	N/A					
Flow	VALUE	VALUE	8-10	gpm	VALUE	
Temperature (winter)	VALUE	VALUE	11.1	°C	VALUE	
Temperature (summer)	VALUE	VALUE	11.1	°C	VALUE	
pH	MINIMUM	MAXIMUM	MAXIMUM		STANDARD UNITS	

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-b for any pollutant which is limited either directly or indirectly but expressively. In an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2-b, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT	2. MARK 'X' OR STIPULATED LEVEL AND PERCENT (if available)	3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
		a. MAXIMUM DAILY VALUE (if available)	b. MAXIMUM DAILY VALUE (if available)	c. LONG TERM AVERAGE VALUE	d. NO. OF ANALYSES	e. CONCEN- TRATION	f. NO. OF ANALYSES
(1) MASS CONCENTRATION	(1) MASS	(1) MASS CONCENTRATION	(1) MASS	(1) MASS CONCENTRATION	(1) MASS	(1) MASS	
1. Bromide	X						
2. Chlorine, Total Residual	X						
3. Color	X						
4. Fecal Coliform	X						
5. Fluoride							
6. Nitrate-Nitrite (as N)		X					

**EM V-B CONTINUED FROM FRONT**

A

## CONTINUED FROM PAGE 3 OF FORM 2-C

IRTC - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4-dinitrophenol, or 2-methyl-4,6-dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TEST b. BE- C. RE- TESTED d. CON- CENTRA- TION	3. EFFLUENT		4. UNITS	5. INTAKE (optional)	
		a. MAXIMUM DAILY VALUE (1) MASS (2) CONCENTRATION	b. MAXIMUM DAILY VALUE (1) MASS (2) CONCENTRATION		c. LONG TERM (if available) (1) MASS (2) CONCENTRATION	d. NO. OF ANAL- YSES
<b>ALS, CYANIDE, AND TOTAL PHENOLS</b>						
Antimony, si (7440-36-0)	X					
Arsenite, Total 10-38-2)	X					
Beryllium, si, 7440-41-7)	X					
Cadmium, si (7440-43-9)	X					
Chromium, si (7440-47-3)	X					
Copper, Total 3-60-6)	X					
Lead, Total 9-92-1)	X					
Mercury, Total 10-07-6)	X					
Nickel, Total 10-02-0)	X					
Selenium, si (7782-49-2)	X					
Silver, Total 10-22-4)	X					
The tellurium, si (7440-28-0)	X					
Zinc, Total 40-60-6)	X					
1. Cyanide, si (57-12-6)	X					
1. Phenols, si	X					
<b>DESCRIBE RESULTS</b>						
7-B-Tetra- bromobenzo-P- xin (1784-01-6)						

POLLUTANT AND CAS NUMBER <i>(If available)</i>	2. MARK X AT TEST INTERVALS INDICATING WHEN OBSERVED	3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
		b. MAXIMUM DAILY VALUE [ <i>if available</i> ]	c. LONG TERM [ <i>if available</i> ] VALUE [ <i>if available</i> ]	d. CONCEN- TRATION [ <i>if mass</i> ] CONCENTRATION	e. CONCEN- TRATION [ <i>if mass</i> ] CONCENTRATION	f. NO. OF ANAL- YSES	g. LONG TERM AVERAGE VALUE [ <i>if concen- tration</i> ]
<b>MS FRACTION - VOLATILE COMPOUNDS</b>							
Acrolein (7-02-81)	X						
Acrylonitrile (7-13-11)	X						
Benzene (43-2)	X	< 1					
Bis (Chloro- Ithy) Ether (2-88-1)	X						
Bromoform (25-2)	X						
Carbon Tetrachloride (23-5)	X						
Chlorobenzene (1-90-7)	X						
Chlorodi- methylane (1-48-1)	X						
Chloroethane (00-3)	X						
.2-Chloro- Vinyl Ether (7-76-8)	X						
Chloroform (36-3)	X						
Dichloro- Iomethane (7-4)	X						
Dichloro- Oromethane (1-8)	X						
1,1-Dichloro- Ene (76-34-3)	X						
1,2-Dichloro- Ene (107-06-2)	X						
1,1-Dichloro- Ene (76-36-4)	X						
1,2-Dichloro- Ene (78-87-6)	X						
3-Dichloro- Ene (642-76-6)	X						
Ethylbenzene (41-4)	X	< 1					
Methyl Iodo (74-83-9)	X						
Methyl Iodo (74-87-3)	X						

## THINED FROM THE FRONT

OIL CONTAMINANT AND CAS NUMBER (If available)	2. MARK X: YES NO	3. EFFLUENT			4. UNITS			5. INTAKE (optional)			
		b. max. concen- tration	c. max. concen- tration	d. max. concen- tration	e. concen- tration	f. mass	g. mass	h. mass	i. long-term concen- tration	j. no. of anal- yses	k. no. of anal- yses
VS FRACTION - BASE/NEUTRAL COMPOUNDS											
Acenaphthene 32-9]	X										
Acenaphthylene 1-96-8)	X										
Anthracene 1-12-7)	X										
Benzidine B7-5)	X										
Benz (a) anthracene 55-3)	X										
Benz (a) ine (50-32-8)	X										
3,4-Benzo- anthrene 99-2)	X										
Benz (a/h) lone -24-2)	X										
Benz (a/h) anthrone -08-9)	X										
Bis (2-Chloro- vinyl) Methane -91-1)	X										
Bis (2-Chloro- 1) Ether -44-4)	X										
Bis (2-Chloro- 1 Ether (1102-60-1)	X										
Bis (2-Ethyl- 1) Phthalate -81-7)	X										
4-Bromo- yl Phenyl r (101-55-3)	X										
Buryl Benzyl siste (85-68-7)	X										
2-Chloro- thylene 18-7)	X										
4-Chloro- yl Phenyl r (7005-72-3)	X										
Chrysene -01-9)	X										
Dibenz (a,h) racene 10-3)	X										
1,2-Dichloro- ene (95-50-1)	X										
1,3-Dichloro- ene (541-73-1)	X										

A

卷之三

PREFACE

Volume 47

ମନ୍ଦିର

ט' ט' ט' ט' ט'

2562

104

4

DM PAGE V

CONTINUED FROM

## CONTINUED FROM PAGE V-6

POLLUTANT AND CAS NUMBER (if available)	2. MARK NUMBER (if available)	3. EFFLUENT TYPE AND CONCEN- TRATION UNIT	4. UNITS AND CONCEN- TRATION UNIT	5. INTAKE (optional)		
				a. MAXIMUM DAILY VALUE	b. LONG TERM AVERAGE VALUE	c. LONG TERM AVERAGE VALUE
<b>CMS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>						
2B. 1,4-Dichloro- benzene (106-46-7)	X					
3B. 3,3'-Dichloro- benzidine (31-94-1)	X					
4B. Diethyl- ththalate (34-66-2)	X					
6B. Dimethyl- ththalate (131-11-3)	X					
6B. Di-N-Butyl- ththalate (34-74-2)	X					
7B. 2,4-Dinitro- diluene (121-14-2)	X					
8B. 2,6-Dinitro- diluene (606-20-2)	X					
9B. Di-N-Octyl- ththalate (117-84-0)	X					
1B. 1,2-Diphenyl- draine (or Azo- nitrile) (122-66-7)	X					
1B. Fluoranthene 206-44-0)	X					
2B. Fluorene 36-73-7)	X					
1B. Hexachlorobutene 1B-74-11	X					
4B. Hexa- chlorobutadiene 37-68-3)	X					
5B. Hexachloro- cyclpentadiene 77-47-4)	X					
6B. Hexachloro- thane (67-72-1)	X					
7B. Indeno 1,2,3-cd) Pyrene 193-39-5)	X					
8B. Isophorone 78-59-1)	X					
9B. Naphthalene 91-20-3)	X					
10B. Nitrobenzene 98-95-3)	X					
11B. N-Nitro- odimethylamine 62-75-9)	X					
12B. N-Nitrosodi- N-propylamine	X					

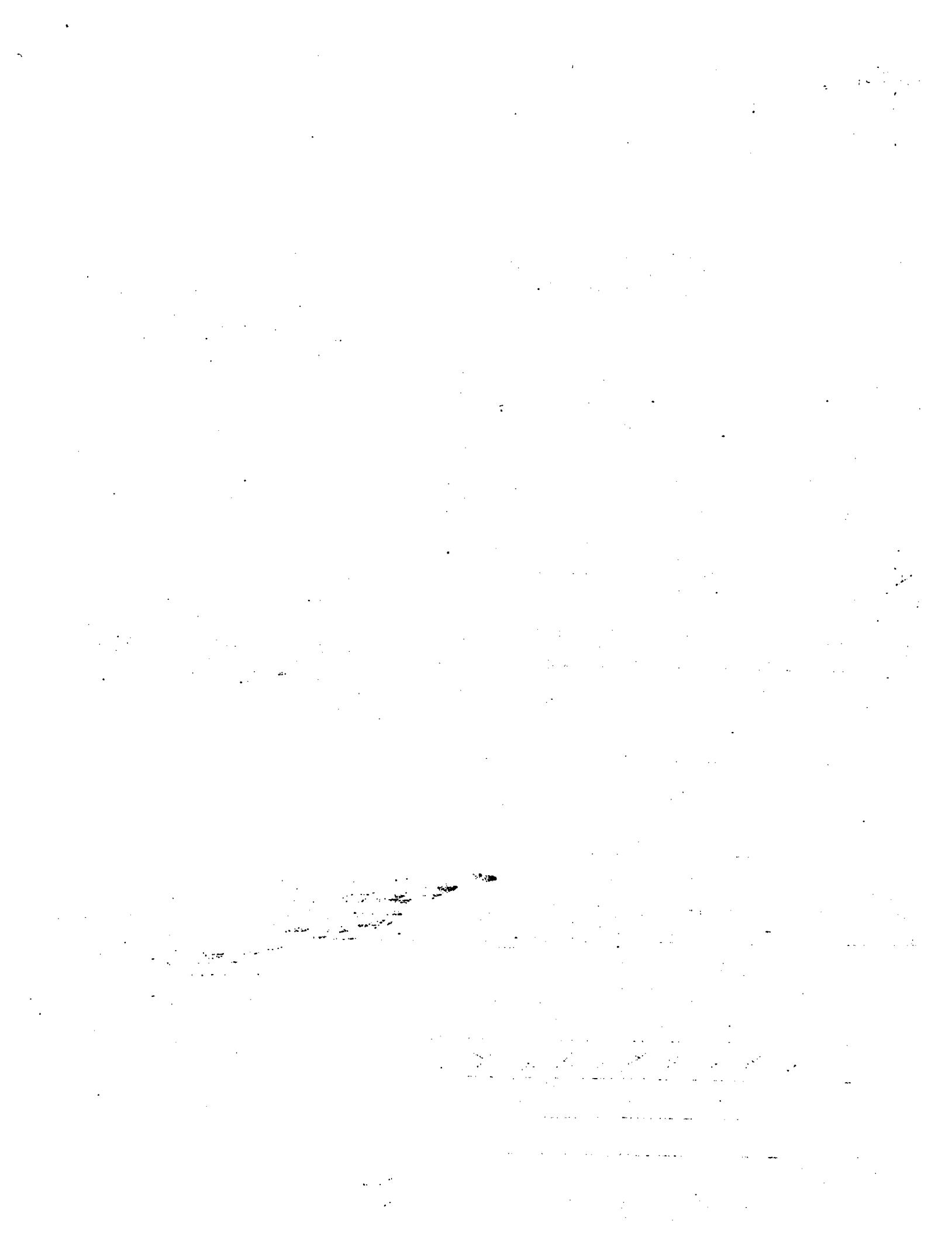
## TINUED FROM THE FRONT

CONTAMINANT IND. C.A.S. NUMBER (available)	2. MARK 'X' AT THE TIME THE FRACTION IS PREPARED	3. EFFLUENT			5. MAXIMUM DAILY VALUE (if available)	6. LONG TERM VALUE	7. UNITS OF MEASURE	8. LONG TERM AVERAGE VALUE	9. NO. OF ANALYSES
		a) CONCEN. in mg/l b) CONCEN. in ppm c) CONCEN. in ppb	d) NO. OF ANALYSES	e) CONCEN. in mg/l f) CONCEN. in ppm g) CONCEN. in ppb					
<b>AS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>									
N-Nitro- phenylamine 0-6)		X							
Phenanthrene 1-8)		X							
Pyrene 00-0)		X							
1,2,4-Tri- benzene 82-1)		X							
<b>IS FRACTION - PESTICIDES</b>									
ldrin 00-2)		X							
BHC B4-6)		X							
BHC 35-7)		X							
BHC 3-9)		X							
BHC 36-8)		X							
lordanne 1-9)		X							
4-DDT 1-3)		X							
4'-DDE 1-9)		X							
4'-DDDT 1-8)		X							
ieldrin 1-1)		X							
Endosulfan 9-7)		X							
Endosulfan 07-8)		X							
ndrin -8)		X							
ndrin 06-4)		X							
mpachlor 8)		X							

(INUED FROM PAGE V-8

A

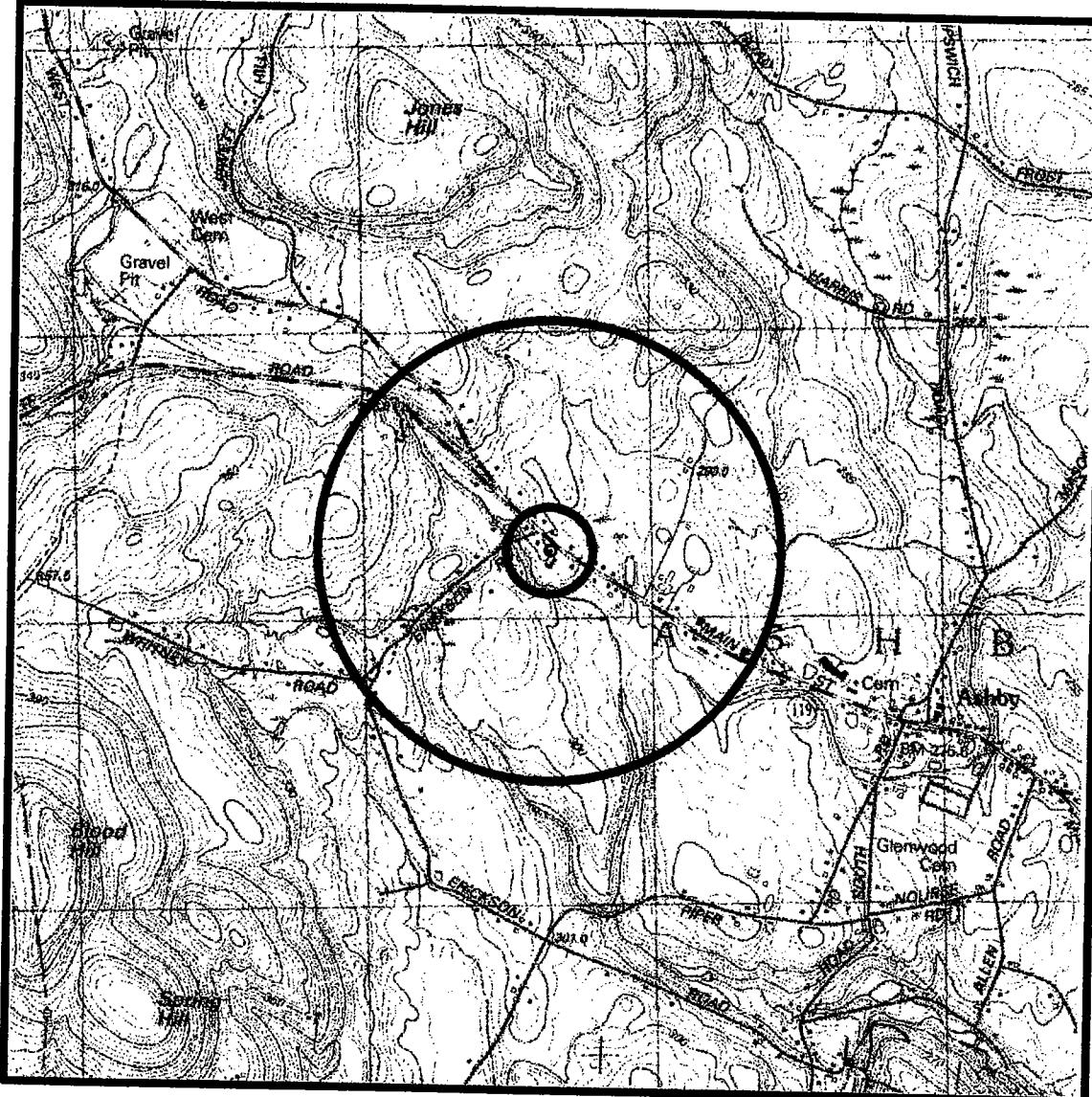
OULLUTANT IND. CAS NUMBER (if available)	2. MARK 'X' AT THE ITEM NUMBER APPLICABLE TO THIS ITEM	3. EFFLUENT ITEM NUMBER (if available)	2. MARK 'X' AT THE ITEM NUMBER APPLICABLE TO THIS ITEM		3. EFFLUENT ITEM NUMBER (if available)		4. UNITS		5. INTAKE (optional)	
			a. MAXIMUM DAILY VALUE (i) MASS CONCENTRATION	b. MAXIMUM DAILY VALUE (i) MASS CONCENTRATION	c. LONG TERM AVERAGE VALUE (i) MASS CONCENTRATION	d. CONCEN- TRATION (i) MASS CONCENTRATION	e. NO. OF ANAL- YSES (i) MASS CONCENTRATION	f. NO. OF ANAL- YSES (i) MASS CONCENTRATION		
<b>IS FRACTION - PESTICIDES (continued)</b>										
Heptachlor Ide 4-57-3)	X									
PCB-1242 69-21-9)	X									
PCB-1244 97-69-1)	X									
PCB-1221 04-28-2)	X									
PCB-1232 41-16-5)	X									
PCB-1248 72-28-6)	X									
PCB-1260 36-89-5)	X									
PCB-1018 74-11-2)	X									
Toxaphene 1-36-2)	X									



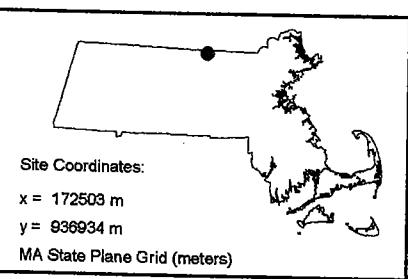
**IT Corporation**

*A Member of The IT Group*

**FIGURES / AS-BUILT DRAWINGS & DIAGRAMS**



SOURCE : SCANNED USGS TOPOGRAPHIC QUADRANGLES  
SUPPLIED BY THE MASSACHUSETTS EXECUTIVE OFFICE  
OF ENVIRONMENTAL AFFAIRS, MASSGIS, JULY 1996



1000      0      1000      2000  
SCALE      FEET



**IT CORPORATION**  
*A Member of The IT Group*

DESIGNED:

DETAILED:

**EMD**

CHECKED:

## SITE LOCATION MAP SHOWING 500' AND 1/2 MILE RADII

**PETERBOROUGH OIL  
COMPANY, INC.**

DRAWING DATE:

**06/25/99**

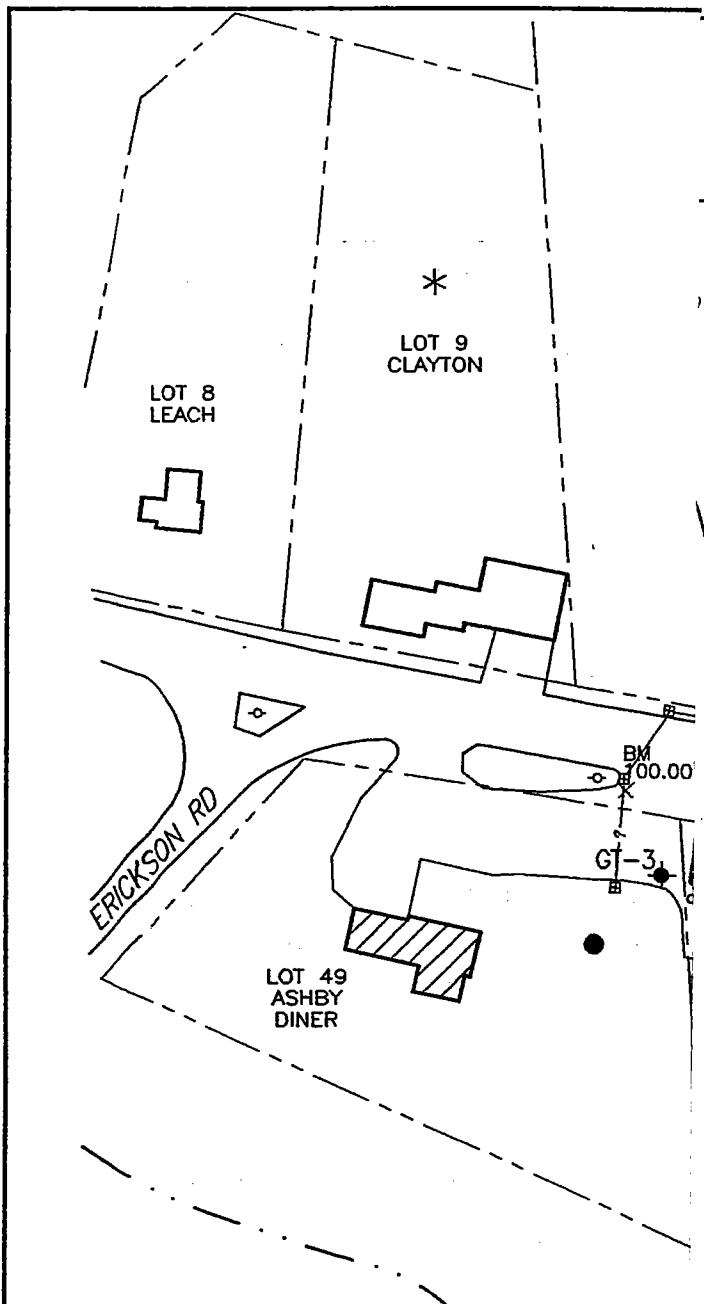
CLIENT:

LOCATION:

**1274 MAIN STREET  
ASHBY, MASSACHUSETTS**

FIGURE:

**1**



#### LEGEND

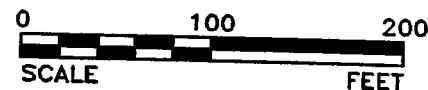
- PIEZOMETER
- OVERTBURDEN WATER SUPPLY WELL
- BEDROCK WATER SUPPLY WELL
- \* WATER SUPPLY WELL ON PROPERTY  
(LOCATION NOT CONFIRMED)
- ◆ DESTROYED MONITORING WELL
- ◆ OVERTBURDEN MONITORING WELL
- EX.: GT-3 - WELL IDENTIFICATION

POINT OF ENTRY (POE) TREATMENT SYSTEMS CURRENTLY MAINTAINED BY PETERBOROUGH OIL COMPANY, INC.

ELEVATIONS RELATIVE TO ARBITRARY DATUM:  
BENCHMARK (BM) = 100.00'

#### PROPERTY LINE

MAP SOURCES: 1] TOWN OF ASHBY, MA ASSESSORS MAPS NO. 6 AND 8 (PREPARED BY CARTOGRAPHIC ASSOCIATES, INC., REVISED TO 1/1/96); 2] MASS. DOT DRAWINGS OF ROUTE 119 UTILITY AND PROPERTY DETAILS (SHEETS 11 AND 12) DATED 1945; 3] SITE WELL LOCATION PLAN PREPARED BY HIDELL-EYSTER & ASSOC., INC. 9/10/86; 4] SITE PLAN OF MR. MIKE'S FOOD MART PROVIDED BY PETERBOROUGH OIL CO., INC., 2/1996; 5] FLUOR DANIEL GTI FIELD MEASUREMENTS AND OBSERVATIONS; 6] USGS ASBURNHAM TOPOGRAPHIC QUADRANGLE (1988); 6] LOCATION AND IDENTIFICATION OF AREA RESIDENTS MAP PREPARED BY HIDELL-EYSTER TECHNICAL SERVICES, INC., 1/25/95.



 <p>100 RIVER RIDGE DRIVE NORWOOD, MA 02062 (781) 769-7600</p>		
GAUGING DATE: NA	DRAWING DATE: 02/24/00	ACAD FILE: SITEPLAN
<b>SITE MAP</b>		
CLIENT: PETERBOROUGH OIL COMPANY, INC. PM:		
LOCATION: MR. MIKE'S 1274 MAIN STREET PE/RG: ASHBY, MASSACHUSETTS		
DESIGNED: JC/EMD	DETAILED: JC/EMD	PROJECT NO.: 11300156 FIGURE: 2

## VALVE AND PIPING SYMBOLS

NO. DATE BY REVISION

▷ GLOBE VALVE	□ BASKET THERMOPNEUMATIC PRESSURE
▷ GATE VALVE	△ Y-TYPE STRAINER
▷ BUTTERFLY VALVE	○ DUPLEX AIR GROUNDWATER
ZI CHECK VALVE	■ SLEEVE COUPLING
▷ PLUG VALVE	Y FLOOR DRAIN
▷ 3-WAY VALVE	Y EQUIPMENT WATER
▷ ANGLE VALVE	→ CLEANOUT
▷ RELIEF OR SAFETY VALVE	— REMOVABLE PLATE
▷ DIAPHRAGM VALVE	— REMOVABLE EXTRACTION
▷ BALL VALVE	— BF BLIND FLANGE
▷ SELF-CONTAINED PRESSURE REGULATING VALVE W/RELIEF	— EXHAUST
▷ KNIFE GATE VALVE	+ EXHAUST
BP BACKFLOW PREVENTER	□ REDUCER POLYVINYL CHLORIDE PIPE
NO NORMALLY OPEN	■ UNION METAL PIPE
NC NORMALLY CLOSED	— C QUICK DISCONNECT PIPE
H FLEXIBLE HOSE	■ GAUGE SIDE PIPE
V ROTAMETER	— R CONCRETE PIPE
	EL PIPE
	PIPE

### IDENTIFICATION

□	REDUCER	POLYVINYL CHLORIDE PIPE
■	UNION	METAL PIPE
— C	QUICK DISCONNECT	EEZ PIPE
■	GAUGE SIDE PIPE	CONCRETE PIPE
		EL PIPE
		PIPE

## VALVE OPERATOR SYMBOLS

S	SOLENOID	F	DIAPHRAGM
M	MOTOR, ELECTRIC	T	HANDWHEEL
↑	DIAPHRAGM	A	CHAINWHEEL

### IDENTIFICATION

SIGNATURE	DATE
REVIEW ENGR:	
PROJECT ENGR:	
PROJECT MGR:	
CLIENT:	
 IT CORPORATION A Member of The IT Group	
100 RIVER RIDGE DRIVE NORWOOD, MA. 02062      (781) 789-7600	

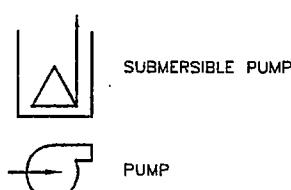
### PRIMARY ELEMENT SYMBOLS - LASS

—  —	ORIFICE PLATE	—X—	PIVOTATION
—□—	PITOT TUBE	—M—	
—○—	VENTURI OR FLOW TUBE	—O—	

### CATION

NORMALLY USED)

## EQUIPMENT SYMBOLS



NORMALLY USED)

S

### IONS

OPEN-CLOSE  
ON-OFF (MAINTAINED)  
OXIDATION REDUCTION POTENTIAL  
OPEN-STOP-CLOSE (MOMENTARY)  
START-STOP (MOMENTARY)  
HIGH SELECT  
LOW SELECT  
SQUARE ROOT  
ADD OR TOTALIZE

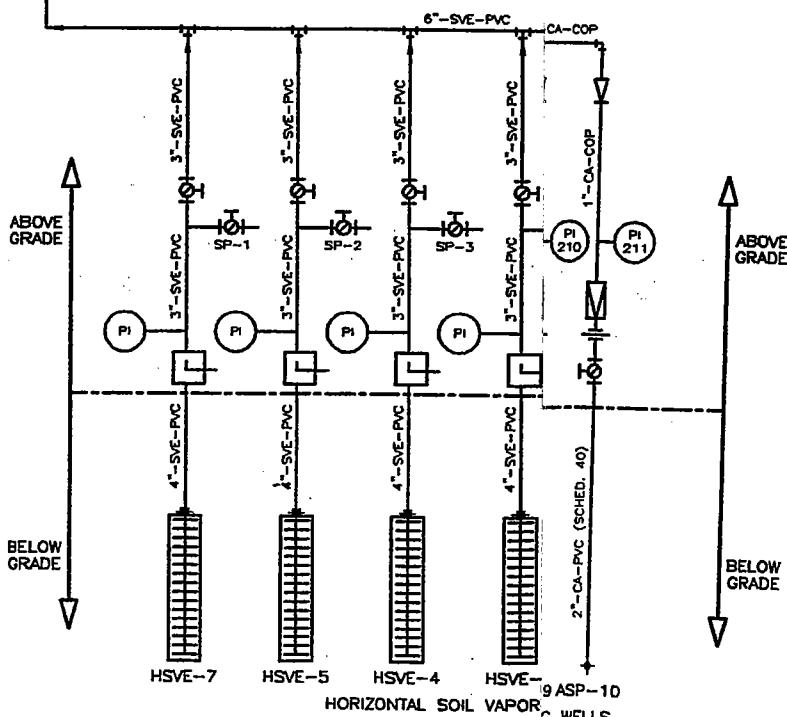
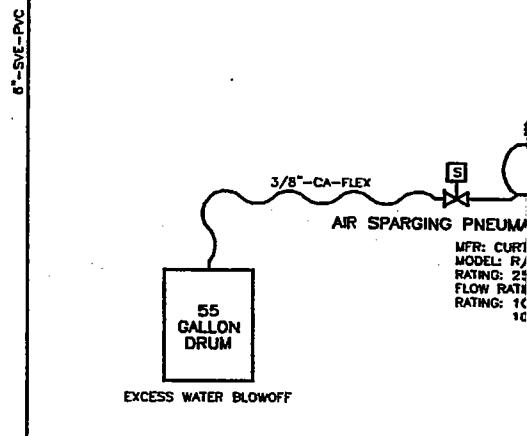
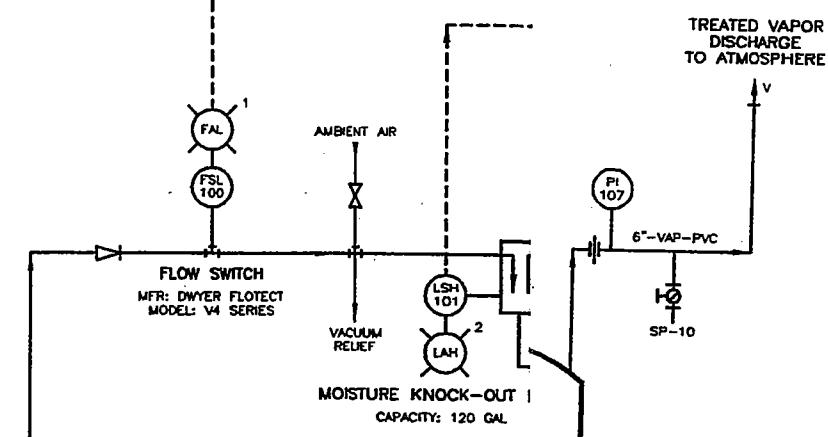
**MR. MIKE'S MOBIL**  
1274 MAIN STREET  
ASHBY, MASSACHUSETTS

SOIL VAPOR EXTRACTION, AIR SPARGING  
AND GROUNDWATER PUMPING SYSTEM

### AS-BUILT PIPING & INSTRUMENTATION DIAGRAM LEGEND

DESIGNED BY:	DETAILED BY:	CHECKED BY:
JPS	EMD	JAC
DATE:	FILE:	
02/17/00	POCAPLEG.DWG	
PROJECT NO.:	CONTRACT:	
01130-0156		
DRAWING:	REVISION:	

NO. DATE BY REVISION



#### ALARMS

1. LOW FLOW - SOIL VAPOR EXTRACTION BLOWER
2. HIGH LEVEL - MOISTURE SEPARATOR
3. HIGH PRESSURE - INLET OF PARTICLE FILTERS
4. LOW AIR PRESSURE - COMPRESSOR

#### APPROVALS

SIGNATURE	DATE
-----------	------

REVIEW ENGR:

PROJECT ENGR:

PROJECT MGR:

CLIENT:



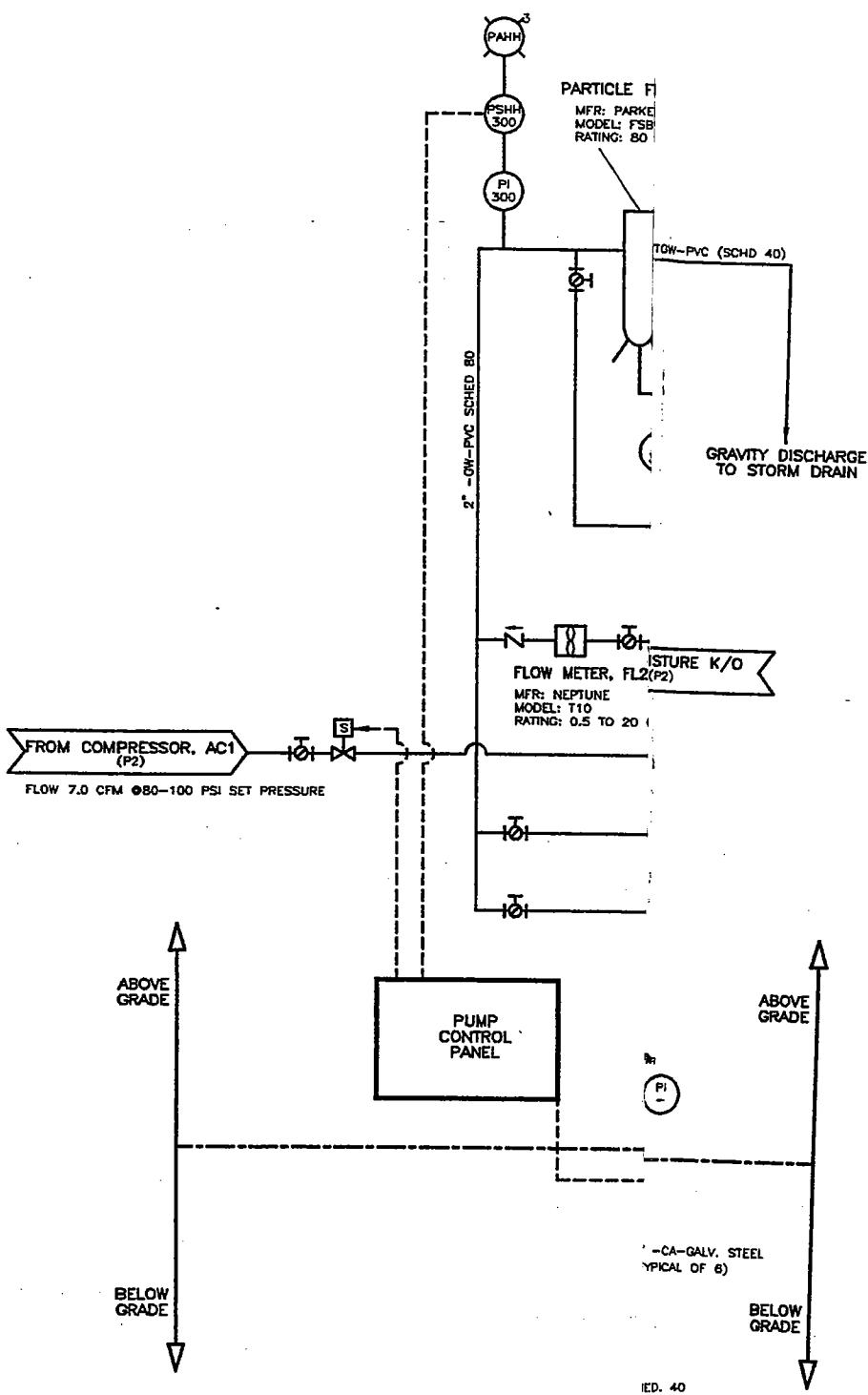
100 RIVER RIDGE DRIVE  
NORWOOD, MA 02062  
(781)769-7600

**MR. MIKE'S MOBIL**  
1274 MAIN STREET  
ASHBY, MASSACHUSETTS

SOIL VAPOR EXTRACTION, AIR SPARGING  
AND GROUNDWATER PUMPING SYSTEM

**A8 BUILT - PIPELINE AND  
INSTRUMENTATION DIAGRAM  
SOIL VAPOR EXTRACTION  
AND AIR SPARGING SYSTEM**

DESIGNED BY:	DETAILED BY:	CHECKED BY:
JPS	EMD/JC	JAC
DATE:	FILE:	
02/24/00	POCA-PD1	
PROJECT NO.:	CONTRACT:	
01130-0156		



NO.	DATE	BY	REVISION
-----	------	----	----------

**ALARMS**

1. LOW FLOW - SOIL VAPOR EXTRACTION
2. HIGH LEVEL - MOISTURE SEPARATOR
3. HIGH PRESSURE - INLET OF PARTICLE FILTERS
4. LOW AIR PRESSURE - COMPRESSOR

**APPROVALS**

SIGNATURE	DATE
REVIEW ENGR:	
PROJECT ENGR:	
PROJECT MGR:	
CLIENT:	



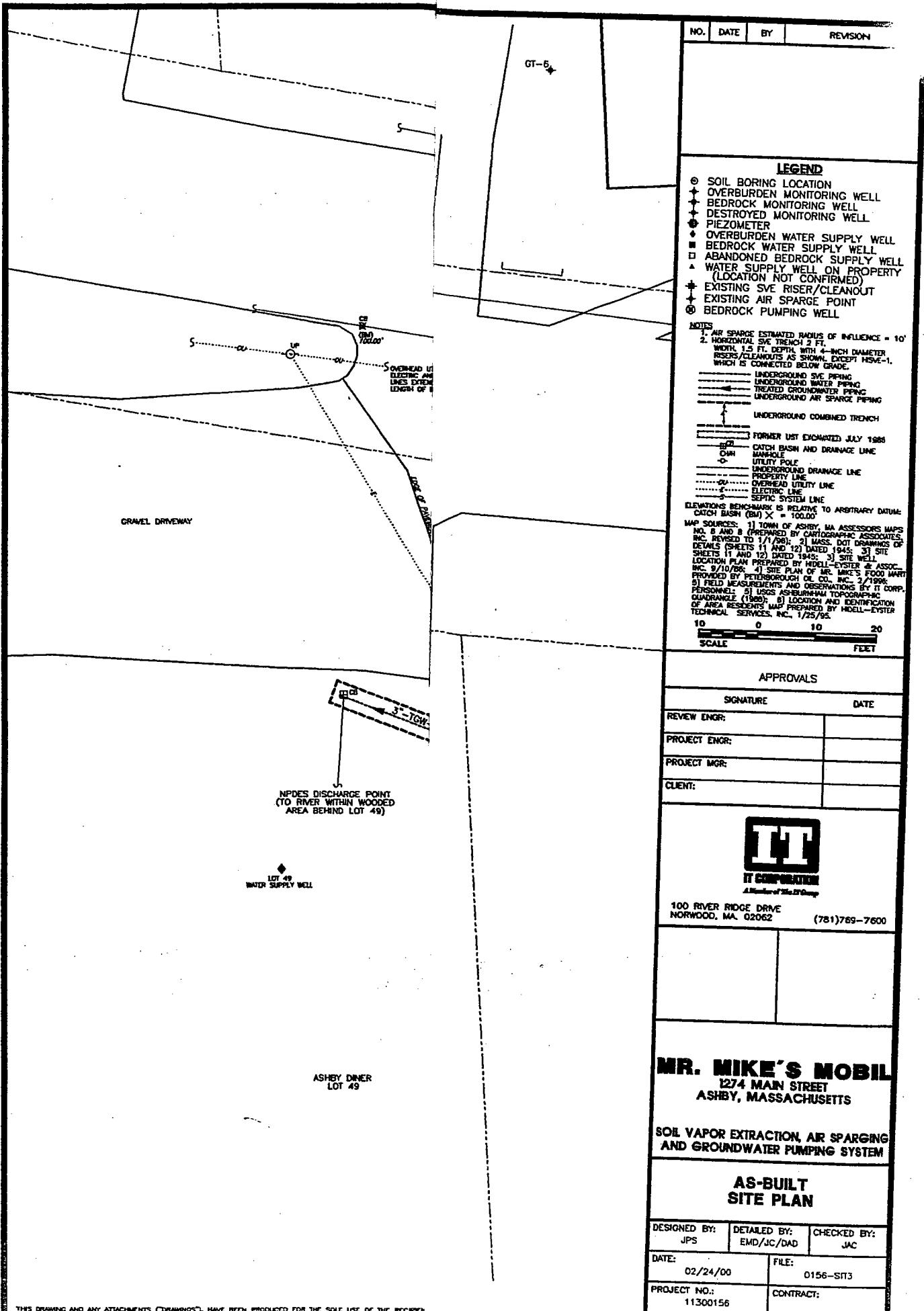
100 RIVER RIDGE DRIVE  
NORWOOD, MA. 02062      (781)769-7600

**MR. MIKE'S MOBIL**  
1274 MAIN STREET  
ASHBY, MASSACHUSETTS

SOIL VAPOR EXTRACTION, AIR SPARGING  
AND GROUNDWATER PUMPING SYSTEM

**AS-BUILT  
PIPING & INSTRUMENTATION  
DIAGRAM - GROUNDWATER  
PUMPING SYSTEM**

DESIGNED BY: JPS	DETAILED BY: EMD/JC	CHECKED BY: JAC
DATE: 02/24/00	FILE: POCA-PD2	
PROJECT NO.: 01130-0156	CONTRACT:	



**IT Corporation**  
*A Member of The IT Group*

**FORM 1 GENERAL INFORMATION**

**ATTACHMENT A**  
**SECTION XII. NATURE OF BUSINESS**

## NATURE OF BUSINESS / BRIEF DESCRIPTION OF PROJECT

Peterborough Oil Company, Inc. (POC), 665 North Main Street, Leominster, MA has been identified as the Potentially Responsible Party (PRP) by the Massachusetts Department of Environmental Protection (MADEP) for petroleum impacts at Mr. Mikes Mobil, 1274 Main Street, Ashby, MA (Figure 1).

The subject site is an operating petroleum retail facility that includes a small convenience store, four gasoline underground storage tanks (UST) and one dispenser island. The convenience store contains two inactive automotive repair bays currently used for inventory storage and office space. In July 1986, the MADEP was informed that a possible release of gasoline to the environment was discovered during excavation/removal activities of UST previously in service. Subsequent investigations indicate the release impacted soil and groundwater at the site. Evidence of hydrocarbon impact to drinking water supply wells at residential/commercial properties in the site vicinity has also been documented. The subject site and surrounding properties (with point of entry treatment systems currently maintained by POC) are shown on Figure 2.

The site was assigned Release Tracking Number 2-0000011 and classified as a Tier 1A Disposal Site (Permit # 84825) by the MADEP in February 1994. A Phase III Remedial Action Plan (RAP) was completed in August 1998 based upon results of investigations performed following tier classification. The purpose of a Phase III RAP is to screen remedial options and select an option that is reasonably likely to lead to a Permanent Solution /No Significant Risk in accordance with the Massachusetts Contingency Plan (MCP). Impacted groundwater recovery, in conjunction with soil vapor extraction (SVE) and air sparging, was identified as an effective method for remediating the site. A Phase IV Remedial Implementation Plan (RIP) outlining the design of the remedial action alternative selected was submitted to the MADEP in February 1999.

The remediation system was installed during April through July 1999, and was activated on August 2, 1999. Groundwater is pumped from bedrock aquifer recovery well GT-4B. Water captured by the SVE system is also treated utilizing pumps in sumps HSVE-2 through HSVE-7. The groundwater treatment system includes two bag filters followed by two 500-pound liquid phase granular activated carbon (LGAC) units located within the equipment container. Treated groundwater is discharged to a catch basin that ultimately discharges to Willard Brook (see Drawing Y1). The configuration of the groundwater treatment system and other related equipment are depicted on Drawings P2 and P3.

Treated groundwater discharged from the system is regulated under a National Pollution Discharge Elimination System (NPDES) Exclusion Permit which currently requires sampling and analysis of process and discharge water on a monthly basis. Monitoring reports have been submitted to the United States Environmental Protection Agency under a separate cover in accordance with conditions specified in the NPDES Permit Exclusion.

**IT Corporation**

*A Member of The IT Group*

**FORM 2C APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER**

**ATTACHMENT B  
SECTION IV. IMPROVEMENTS**



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001

June 29, 1999

Mr. Tim Petersen  
Peterborough Oil Company  
665 North Main Street  
Leominster, MA 01453

Re: NPDES Permit Exclusion for contaminated water dewatering at 1274 Main Street in Ashby, MA.  
NPDES Permit Exclusion Reference #99-193

Dear Mr. Petersen:

Based on information provided by Mr. Jeffrey Shaw, of IT Corporation, (IT), Inc. I grant you, pursuant to Title 40 of the Code of Federal Regulations, Part 122.3(d), exclusion from the requirement for a permit under the National Pollutant Discharge Elimination System (NPDES), in order that bed rock groundwater pump and treatment system may begin in a timely fashion at the referenced location.

Subject to other controls that may be established by the State of Massachusetts, and the Town of Ashby, you are authorized to discharge up to 20 gallons of treated water per minute, through a system consisting of groundwater depression leading to a granular activated carbon filtration system (sized appropriately for the anticipated flow), prior to discharge into a storm water drainage system leading to an unnamed brook leading to Willard Brook. The discharge must be done in accordance with the following provisions:

1. No discharge of oil, sufficient to cause a sheen (as defined in 40 CFR 110), occurs to the drainage system. The discharge of a sheen of oil, or gasoline, constitutes an oil spill and must be reported, immediately, to the National Response Center (NRC) at (800) 424-8802.
2. Security provisions are maintained to assure that system failure, vandalism, or other incident will be addressed in a timely fashion, preventing the loss of oil or contaminated water to the storm water drainage system.
3. Sampling and analysis, in accordance with EPA Methods, must be performed for the following chemicals with the listed limits being applicable:

Total Petroleum Hydrocarbons

5 ppm

Benzene

5 ppb

continued

Toluene	*
Ethyl Benzene	*
Xylenes	*
The total for Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX)	-----
	100 ppb
Methyl Tertiary Butyl Ether	70 ppb

Laboratory samples must be obtained from the influent to treatment, and to the effluent to the drainage system on the first and every other day of discharge during the first week of operations. During the balance of the first month, sampling must be at least weekly. After the first month, monthly sampling must be performed.

Analytical Reports, with quality control information, are to be reported to the DEP Project Manager, and to the undersigned NPDES permit exclusion writer of this office, by the 28th of April, July, October, and January, for the preceding three-month period, using the NPDES exclusion reference number assigned above.

4. You, or your representative, provide 24 hours notice of the anticipated start-up of discharge, if start-up occurs after July 6, 1999.
5. You, or your contractor, maintain copies of all analytical reports, and quality control information for a period of 3 years from the date of the report.

Because the purpose of this exclusion from the regulations is to allow for remediation of contaminated groundwater, the exclusion will be in effect for four (4) months from system start-up. This exclusion may also be adjusted verbally if operational conditions require (ie; equipment failure or weather).

After four months of discharge, it is expected that an application for a permanent NPDES wastewater permit will be submitted. Permanent NPDES permit application materials may be obtained from Ms. Olga Vergara of EPA's Boston office. She may be contacted at (617) 918-1519.

If any questions should arise, please do not hesitate to contact me at (617) 918-1235.

Sincerely,

Scott R. Pellerin  
On-Scene Coordinator  
Emergency Response Section

cc: J. Downing  
B. Kubit  
N. Child  
J. Shaw

EPA-MA Permits  
MA DEP-OWM  
MA DEP-BWSC-Central Region  
IT

**FORM 2C APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER**

**ATTACHMENT C**  
**SECTION V. INTAKE AND EFFLUENT CHARACTERISTICS**

**TABLE 1**  
**AQUEOUS PHASE SYSTEM SAMPLING SUMMARY**  
**PETERBOROUGH OIL COMPANY, MR. MIKES MOBIL**  
**1274 MAIN STREET, ASHBY, MA**

Date	Sample ID	Methyl-t-butyl ether (MTBE)	Benzene	Toluene	Ethylbenzene	mp-Xylene	0-Xylene	Total BTEX	Total BTEX & MTBE	EPA Method 8100M (mg/L)	Comments
NPDES Exclusion Discharge Limit		70.0	5.0	—	—	—	—	100.0	—	5.0	
09-Aug-99	LGAC-1 INF	20.0	<1	<1	<1	<1	<1	BDL	20.0	<0.5	
09-Aug-99	LGAC-1 EFF	<10	<1	<1	<1	<1	<1	BDL	BDL	<0.5	
09-Aug-99	LGAC-2 EFF	<10	<1	<1	<1	<1	<1	BDL	BDL	<0.5	
11-Aug-99	LGAC-1 INF	70.0	<1	<1	<1	<1	<1	BDL	70.0	<0.5	
11-Aug-99	LGAC-2 EFF	<10	<1	<1	<1	<1	<1	BDL	BDL	<0.5	
16-Aug-99	LGAC-1 INF	160.0	<1	5.0	<1	4.0	<1	9.0	169.0	0.6	
16-Aug-99	LGAC-2 EFF	<10	<1	<1	<1	<1	<1	BDL	BDL	<0.5	
23-Aug-99	LGAC-1 INF	160.0	<1	<1	<1	<1	<1	BDL	160.0	<0.5	
23-Aug-99	LGAC-2 EFF	<10	<1	<1	<1	<1	<1	BDL	BDL	<0.5	
30-Aug-99	LGAC-1 INF	170.0	<1	<1	<1	<1	<1	BDL	170.0	<0.5	
30-Aug-99	LGAC-2 EFF	<10	<1	<1	<1	<1	<1	BDL	BDL	<0.5	
07-Sep-99	LGAC-1 INF	140.0	<1	<1	<1	<1	<1	BDL	140.0	<0.5	
07-Sep-99	LGAC-1 EFF	20.0	<1	<1	<1	<1	<1	BDL	20.0	<0.5	
07-Sep-99	LGAC-2 EFF	<10	<1	<1	<1	<1	<1	BDL	BDL	<0.5	
15-Oct-99	LGAC-1 INF	110.0	<1	<1	<1	<1	<1	BDL	110.0	5.1	Primary carbon rebedded
15-Oct-99	LGAC-1 EFF	<10	<1	<1	<1	<1	<1	BDL	BDL	<0.5	
15-Oct-99	LGAC-2 EFF	<10	<1	<1	<1	<1	<1	BDL	BDL	<0.5	
23-Nov-99	LGAC-1 INF	80.0	<1	<1	<1	<1	<1	BDL	80.0	<0.5	
23-Nov-99	LGAC-1 EFF	<10	<1	<1	<1	<1	<1	BDL	BDL	<0.5	
23-Nov-99	LGAC-2 EFF	<10	<1	<1	<1	<1	<1	BDL	BDL	<0.5	
22-Dec-99	LGAC-1 INF	90.0	<1	<1	<1	<1	<1	BDL	90.0	NA	TPH sample container broken
22-Dec-99	LGAC-1 EFF	<10	<1	<1	<1	<1	<1	BDL	BDL	<0.5	
22-Dec-99	LGAC-2 EFF	<10	<1	<1	<1	<1	<1	BDL	BDL	<0.5	
11-Jan-00	LGAC-1 INF	100.0	2.0	11.0	11.0	87.0	38.0	149.0	249.0	1.7	
11-Jan-00	LGAC-1 EFF	40.0	<1	<1	<1	<1	<1	BDL	40.0	<0.5	
11-Jan-00	LGAC-2 EFF	<10	<1	<1	<1	<1	<1	BDL	BDL	<0.5	

Notes:

NPDES-National Pollutant Discharge Elimination System

 $\mu\text{g/L}$ -Microgram per liter

mg/L-Milligrams per liter

LGAC-Liquid phase granular activated carbon

NA - Not analyzed for this parameter.

NS - Not sampled.

BDL-Below detection limits

LGAC-1 INF- Influent water sample taken before primary liquid granular activated carbon unit.

LGAC-1 EFF- Midfluent water sample taken between liquid granular activated carbon units.

LGAC-2 EFF- Effluent water sample taken after secondary liquid granular activated carbon unit.

p:\operations\poc\ashby\draft\data\ashby system operations summary



# eastern analytical

professional laboratory services

Jeff Shaw  
IT Corp. (Nor)  
100 River Ridge Drive  
Norwood , MA 02062

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 19958  
Client Identification: POC Ashby 11300156 23052000  
Date Received: 1/11/2000

Dear Mr. Shaw :

Enclosed please find the laboratory report for the above identified project. All analyses were subjected to rigorous quality control measures to assure data accuracy. Unless otherwise stated, all holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted  
< = "less than" followed by the reporting limit  
TNR = Testing Not Requested  
ND = None Detected, no established detection limit  
RL = Reporting Limits

If you have any questions regarding the results contained within, please feel free to directly contact me, the department supervisor, or the analytical chemist who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Susan Uhler  
Susan C. Uhler, Lab Director

1/11/2000  
Date



# LABORATORY REPORT

Eastern Analytical, Inc. ID#: 19958

Client: IT Corp. (Nor)

Client Designation: POC Ashby 11300156 23052000

Sample ID:	INF-1	EFF-1	EFF-2
Analytical Type:	Sample	Sample	Sample
Matrix:	aqueous	aqueous	aqueous
Date Sampled:	1/11/00	1/11/00	1/11/00
Date Received:	1/11/00	1/11/00	1/11/00
Units:	mg/l	mg/l	mg/l
Date of Extraction/Prep:	1/13/00	1/13/00	1/13/00
Date of Analysis:	1/13/00	1/13/00	1/13/00
Analyst:	KH	KH	KH
Method:	8100 Mod	8100 Mod	8100 Mod
Dilution Factor:	1	1	1
TPH (C9-C40)	1.7	< 0.5	< 0.5



# LABORATORY REPORT

Eastern Analytical, Inc. ID#: 19958

Client: IT Corp. (Nor)

Client Designation: POC Ashby 11300156 23052000

Sample ID:	INF-1	EFF-1	EFF-2
------------	-------	-------	-------

Analytical Type:	Sample	Sample	Sample
Matrix:	aqueous	aqueous	aqueous
Date Sampled:	1/11/00	1/11/00	1/11/00
Date Received:	1/11/00	1/11/00	1/11/00
Units:	µg/l	µg/l	µg/l
Date of Analysis:	1/20/00	1/20/00	1/20/00
Analyst:	VG	VG	VG
Method:	8021B	8021B	8021B
Dilution Factor:	1	1	1

Methyl-t-butyl ether(MTBE)	100	40	< 10
Benzene	2	< 1	< 1
Toluene	11	< 1	< 1
Ethylbenzene	11	< 1	< 1
m-Xylene	87	< 1	< 1
o-Xylene	38	< 1	< 1

19958

## CHAIN-OF-CUSTODY RECORD

## REQUESTED ANALYSES

SAMPLE I.D.	SAMPLING DATE / TIME	MATRIX	NOTES
EFF-1	1-11-00 045	GW	3
EFF-1	1-11-00	GW	3
EFF-2	1-11-0,0	GW	3
EFF-2	1-11-0,0	GW	3
EFF	1/1/00 145	A	
EFF	1/1/00 130	A	2

REACTIVE: HCl; NaNO<sub>3</sub>; S-H<sub>2</sub>SO<sub>4</sub>; Na-NaOH

CT MANAGER : <u>Jeff Shaw</u>	RESULTS NEEDED BY _____
NY : <u>TT Corp.</u>	(enter preferred date) : _____
SS : <u>100 River Rd</u>	(Guaranteed rapid turnaround needs pre-approval)
STATE <u>NH</u> ZIP <u>02002</u>	Reporting Options :
TEL <u>769 7600</u> EXT: <u>787</u>	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C
FAX <u>769 7991</u>	<input type="checkbox"/> Hard Copy <input type="checkbox"/> Fax
	<input type="checkbox"/> Electronic: _____
	Quote # _____
	P.O. # _____
	Sampler(s) : <u>Wagen &amp; Co</u>
	Relinquished by <u>Jeff Shaw</u> Date <u>1/1/00</u> Time <u>1200</u>
	Relinquished by <u>Jeff Shaw</u> Date <u>1/1/00</u> Time <u>1200</u>

Notes : (i.e. Special Detection Limits, Billing Info. if different)

CT Manager : Jeff Shaw  
 NY : TT Corp.  
 SS : 100 River Rd  
 State : NH Zip : 02002  
 Tel : (769) 7600 Ext: 787  
 Fax : (769) 7991

Notes : (i.e. Special Detection Limits, Billing Info. if different)

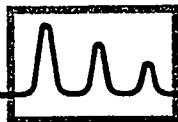
CT Manager : Jeff Shaw  
 NY : TT Corp.  
 SS : 100 River Rd  
 State : NH Zip : 02002  
 Tel : (769) 7600 Ext: 23052000  
 Fax : (769) 7991  
 Other : NH MA ME VT OTHER  
 historically contaminated

(WHITE: Original    YELLOW: Lab Files    PINK: Project Manager)

Relinquished by \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ Received by \_\_\_\_\_

Relinquished by Jeff Shaw Date 1/1/00 Time 1200 Received by Jeff Shaw Date 1/1/00 Time 1200

Relinquished by Jeff Shaw Date 1/1/00 Time 1200 Received by Jeff Shaw Date 1/1/00 Time 1200



**eastern analytical**

*professional laboratory services*

Mike Dacey  
Fluor Daniel GTI  
100 River Ridge Drive  
Norwood, MA 02062

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 13987 FDLMA  
Client Identification: POC Ashby 011300156  
Date Received: 9/16/98

Dear Mr. Dacey:

Enclosed please find the laboratory report for the above identified project. All analyses were subjected to rigorous quality control measures to assure data accuracy. Unless otherwise stated, all holding times, preservation techniques, container types and sample condition adhered to EPA protocol.

The following standard abbreviations and conventions apply throughout all Eastern Analytical, Inc. reports:

- < = "less than" followed by the detection limit
- TNR = Testing Not Requested
- ND = None Detected, no established detection limit
- BRL = Below Reporting Limits

If you have any questions regarding the results contained within, please feel free to directly contact me, the department supervisor, or the analytical chemist who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Will Brunkhorst (h)  
Will Brunkhorst, President

9/30/98  
Date



# LABORATORY REPORT

Eastern Analytical, Inc. ID#: 13987

Client: Fluor Daniel GTI

Client Designation: POC Ashby 011300156

Sample ID: GT-4B

Analytical Type: Sample

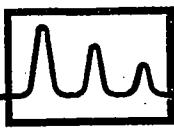
Matrix: aqueous

Date Sampled: 9/15/98

Date Received: 9/16/98

Analytical Matrix	Units	Date of Analysis	Method	Analys
-------------------	-------	------------------	--------	--------

Iron	2.4	AqDis	mg/l	9/21/98	200.7	RTW
Manganese	0.37	AqDis	mg/l	9/21/98	200.7	RTW
Iron	10	AqTot	mg/l	9/21/98	200.7	RTW
Manganese	0.44	AqTot	mg/l	9/21/98	200.7	RTW
Total Hardness (as CaCO <sub>3</sub> )	73	AqTot	mg/l	9/21/98	200.7	RTW



# LABORATORY REPORT

Eastern Analytical, Inc. ID#: 13987

Client: Fluor Daniel GTI

Client Designation: POC Ashby 011300156

Sample ID: GT-4B

Analytical Type: Sample

Matrix: aqueous

Date Sampled: 9/15/98

Date Received: 9/16/98

		Units	Date of Analysis	Method Analys
Chloride	63	mg/l	9/18/98	325.2 LO
Alkalinity Total as CaCO <sub>3</sub>	35	mg/l	9/28/98	310.1 KL

**CHAIN-OF-CUSTODY RECORD**

13987

**REQUESTED ANALYSES**

SAMPLE I.D.	SAMPLING DATE / TIME	MATRIX	NOTES
GIT-4/B	9/15/98 11:45	GWW G	<p>✓ Chloride Hardness Conc. in mg/l Alkalinity Total Alkalinity Total Hardness Total Metals (list below) Dissolved Metals (list below) Total Metals (list below) Total Hardness Total Dissolved Solids TSS TDS TS</p> <p>TCLP Metals (list below) Total Metals (list below) Total Hardness Total Dissolved Solids TSS TDS TS</p> <p>PCBs Pesticides 8001/6002 603 AN 620 LII TPH 6100 M LII LII LII MAEPH DME DRD 8015B GRD MAVPH DME GRD 8015B MERGRO 8021B-BTEX (6020 11s) 8021B-Halos (8010 11s) 601 601/502 8021B 624 8200B Plus 10 TICS 8200B S2A2 G-Garb, C-Comp</p>

DERATIVE : H-HCl ; NaNO<sub>3</sub> ; NaHSO<sub>4</sub> ; Na-NOHPROJECT MANAGER : Mike Dacey  
ANY : Fluor Daniel & I  
ADDRESS : Rocky Ridge Dr.  
Norwood STATE MA ZIP 02062  
TEL # (781) 769-7600 EXT:  
(781) 769-7785

FOR LAB USE ONLY	
Adhered to EPA Protocol	
<input type="checkbox"/> Yes	<input type="checkbox"/> No (see attached)
<input checked="" type="checkbox"/> Cold?	<input checked="" type="checkbox"/> Yes
<input type="checkbox"/> Disk	<input type="checkbox"/> No
RESULTS NEEDED BY	
(enter preferred date):	
QA / QC Reporting Level	Reporting Options :
<input type="checkbox"/> A	<input checked="" type="checkbox"/> Hard Copy
<input type="checkbox"/> B	<input type="checkbox"/> Fax
<input type="checkbox"/> C	<input type="checkbox"/> Electronic :
<input type="checkbox"/> E-Mail	<input type="checkbox"/> Disk

Quote #	P.O. #	Sample(s) :	<u>B.I. Deavers</u>
Relinquished by	Date	Time	<u>9/15/98 on behalf of Deavers</u>
Relinquished by	Date	Time	<u>9/18/98 1:20 PM</u>
Relinquished by	Date	Time	<u>9/16/98 1:20 PM</u>
Relinquished by	Date	Time	<u>Received by J. Deavers 1/20/99</u>

COMPLIANCE TESTING

Historically contaminated  Compliance Testing



**ATTACHMENT B****NPDES PERMIT EXCLUSION #99-193**



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001

June 29, 1999

Mr. Tim Petersen  
Peterborough Oil Company  
665 North Main Street  
Leominster, MA 01453

Re: NPDES Permit Exclusion for contaminated water dewatering at 1274 Main Street in Ashby, MA.  
NPDES Permit Exclusion Reference #99-193

Dear Mr. Petersen:

Based on information provided by Mr. Jeffrey Shaw, of IT Corporation, (IT), Inc. I grant you, pursuant to Title 40 of the Code of Federal Regulations, Part 122.3(d), exclusion from the requirement for a permit under the National Pollutant Discharge Elimination System (NPDES), in order that bed rock groundwater pump and treatment system may begin in a timely fashion at the referenced location.

Subject to other controls that may be established by the State of Massachusetts, and the Town of Ashby, you are authorized to discharge up to 20 gallons of treated water per minute, through a system consisting of groundwater depression leading to a granular activated carbon filtration system (sized appropriately for the anticipated flow), prior to discharge into a storm water drainage system leading to an unnamed brook leading to Willard Brook. The discharge must be done in accordance with the following provisions:

1. No discharge of oil, sufficient to cause a sheen (as defined in 40 CFR 110), occurs to the drainage system. The discharge of a sheen of oil, or gasoline, constitutes an oil spill and must be reported, immediately, to the National Response Center (NRC) at (800) 424-8802.
2. Security provisions are maintained to assure that system failure, vandalism, or other incident will be addressed in a timely fashion, preventing the loss of oil or contaminated water to the storm water drainage system.
3. Sampling and analysis, in accordance with EPA Methods, must be performed for the following chemicals with the listed limits being applicable:

Total Petroleum Hydrocarbons

5 ppm

Benzene

5 ppb

continued

Toluene	*
Ethyl Benzene	*
Xylenes	*
The total for Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX)	-----
	100 ppb
Methyl Tertiary Butyl Ether	70 ppb

Laboratory samples must be obtained from the influent to treatment, and to the effluent to the drainage system on the first and every other day of discharge during the first week of operations. During the balance of the first month, sampling must be at least weekly. After the first month, monthly sampling must be performed.

Analytical Reports, with quality control information, are to be reported to the DEP Project Manager, and to the undersigned NPDES permit exclusion writer of this office, by the 28th of April, July, October, and January, for the preceding three-month period, using the NPDES exclusion reference number assigned above.

4. You, or your representative, provide 24 hours notice of the anticipated start-up of discharge, if start-up occurs after July 6, 1999.
5. You, or your contractor, maintain copies of all analytical reports, and quality control information for a period of 3 years from the date of the report.

Because the purpose of this exclusion from the regulations is to allow for remediation of contaminated groundwater, the exclusion will be in effect for four (4) months from system start-up. This exclusion may also be adjusted verbally if operational conditions require (ie; equipment failure or weather).

After four months of discharge, it is expected that an application for a permanent NPDES wastewater permit will be submitted. Permanent NPDES permit application materials may be obtained from Ms. Olga Vergara of EPA's Boston office. She may be contacted at (617) 918-1519.

If any questions should arise, please do not hesitate to contact me at (617) 918-1235.

Sincerely,

Scott R. Pellerin  
On-Scene Coordinator  
Emergency Response Section

cc: J. Downing  
B. Kubit  
N. Child  
J. Shaw

EPA-MA Permits  
MA DEP-OWM  
MA DEP-BWSC-Central Region  
IT



**ATTACHMENT C****CURRENT FIGURES**



MN \* TN  
15°  
Printed from TOPO! ©1999 WMS

SOURCE:  
USGS ASHBURNHAM, MA QUADRANGLE



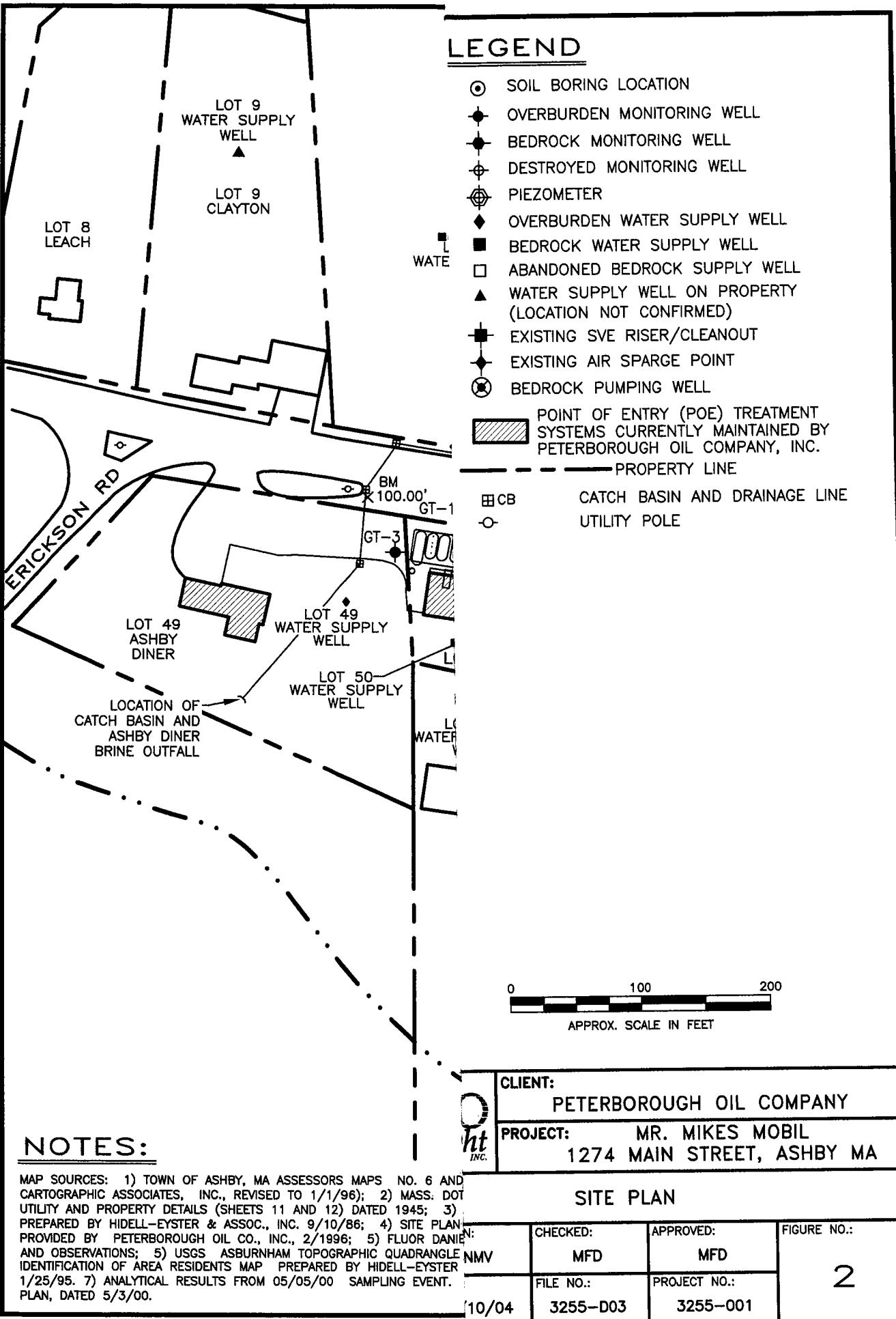
CLIENT:

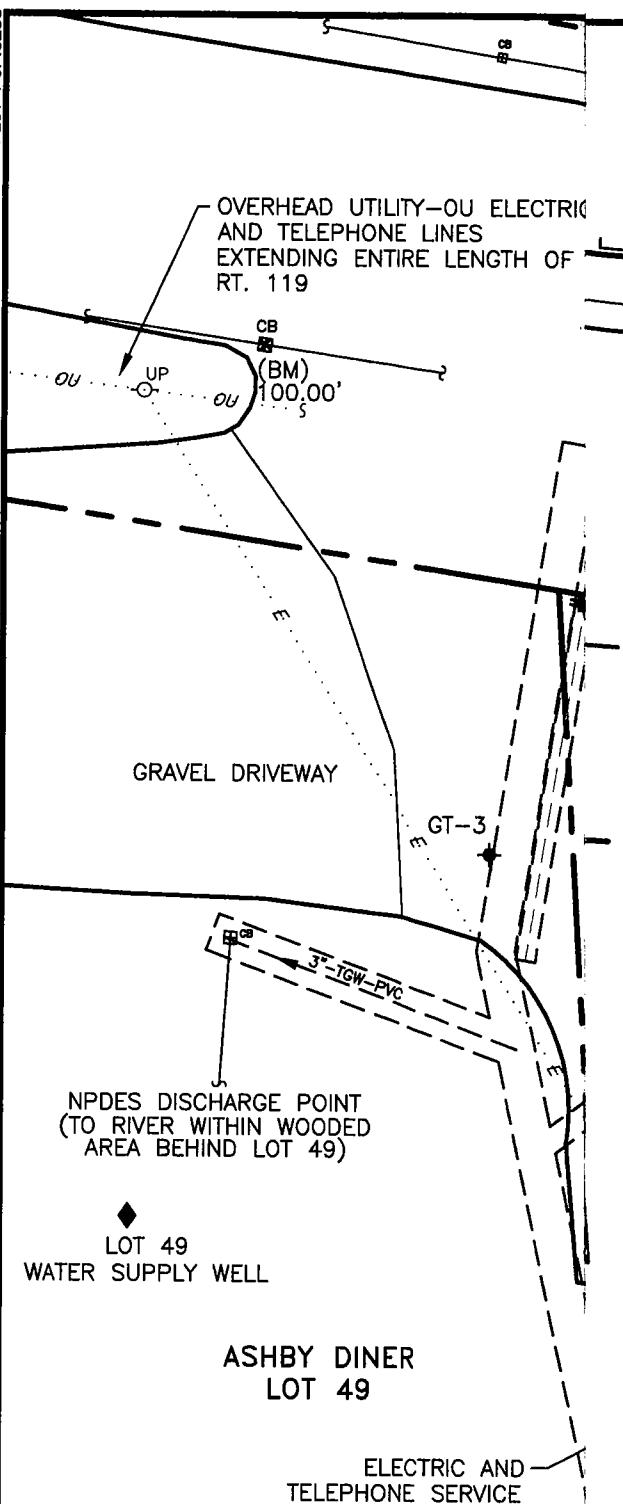
Peterborough Oil Co.  
PROJECT:  
1274 Main Street  
Ashby, MA 01431

SITE LOCUS

DESIGNED:	CHECKED:	APPROVED:	FIGURE:
AJ	ALM	MFD	
SCALE:	DATE:	FILE NO.:	PROJECT NO.:
AS SHOWN	1/22/04	3255F	3255-000

1





## LEGEND

- ◆ OVERTBURDEN MONITORING WELL
- ◆ BEDROCK MONITORING WELL
- ◆ EXISTING SVE RISER/CLEANOUT
- ◆ EXISTING AIR SPARGE POINT
- BEDROCK PUMPING WELL
- SOIL BORING LOCATION
- ◆ DESTROYED MONITORING WELL
- ◆ PIEZOMETER
- ◆ OVERTBURDEN WATER SUPPLY WELL
- BEDROCK WATER SUPPLY WELL
- ABANDONED BEDROCK SUPPLY WELL
- ▲ WATER SUPPLY WELL ON PROPERTY
- UNDERGROUND SVE PIPING (NOT IN USE)
- UNDERGROUND WATER PIPING
- TREATED GROUNDWATER PIPING
- UNDERGROUND AIR SPARGE PIPING (NOT IN USE)
- UNDERGROUND COMBINED TRENCH
- FORMER UST EXCAVATED JULY 1986
- CB CATCH BASIN AND DRAINAGE LINE
- OMH MANHOLE
- UTILITY POLE
- UNDERGROUND DRAINAGE LINE
- OU OVERHEAD UTILITY LINE
- E ELECTRIC LINE
- S SEPTIC SYSTEM LINE

ELEVATIONS BENCHMARK IS RELATIVE TO ARBITRARY DATUM: CATCH BASIN (BM) X = 100.00'

1. AIR SPARGE ESTIMATED RADIUS OF INFLUENCE = 10'
2. HORIZONTAL SVE TRENCH 2 FT. WIDTH, 1.5 FT. DEPTH, WITH 4-INCH DIAMETER RISERS/CLEANOUTS AS SHOWN. EXCEPT HSVE-1, WHICH IS CONNECTED BELOW GRADE.

0 20 40  
APPROX. SCALE IN FEET

## NOTES:

MAP SOURCES: 1) TOWN OF ASHY, MA ASSESSORS MAPS N CARTOGRAPHIC ASSOCIATES, INC., REVISED TO 1/1/96; 2) UTILITY AND PROPERTY DETAILS (SHEETS 11 AND 12) DATED 11/ PREPARED BY HIDELL-EYSTER & ASSOC., INC. 9/10/86; 4) PROVIDED BY PETERBOROUGH OIL CO., INC., 2/1996; 5) FLU AND OBSERVATIONS; 5) USGS ASBURNHAM TOPOGRAPHIC QUAD IDENTIFICATION OF AREA RESIDENTS MAP PREPARED BY HIDELL 1/25/95. 7) ANALYTICAL RESULTS FROM 05/05/00 SAMPLING PLAN, DATED 5/3/00.

	CLIENT: PETERBOROUGH OIL COMPANY		
	PROJECT: MR. MIKES MOBIL 1274 MAIN STREET, ASHY MA		
SOIL VAPOR EXTRACTION, AIR SPARGING AND GROUND WATER PUMPING SYSTEM			
DRAWN: NMV	CHECKED: JPS	APPROVED: MFD	FIGURE NO.: 3
DATE: 9/15/03	FILE NO.: 3255d020	PROJECT NO.: 3255-000	3





GeoInsight, INC.

---

**ATTACHMENT D**

**SUMMARY OF AQUEOUS PHASE ANALYTICAL RESULTS  
AND  
MASS REMOVAL GRAPH**

**TABLE I**  
**AQUEOUS PHASE SYSTEM SAMPLING SUMMARY**  
**MR. MIKE'S MOBIL**  
**1274 MAIN STREET**  
**ASHBY, MASSACHUSETTS**  
**NPDES REFERENCE #99-193**

Date	Sample ID	USEPA Method 8021B (ug/L) (NOTE: Samples after 5/15/01 by USEPA Method 8260B)							USEPA Method 8100M (mg/L) TPH	USEPA Method 8015 GRO (ug/L)	USEPA Method 160.2 (mg/L) TSS	
		Methyl-t-butyl ether (MTBE)	Benzene	Toluene	Ethylbenzene	m-p-Xylene	o-Xylene	Naphthalene	Total BTEX	Total & MTBE		
NPDES Exclusion Discharge Limit		70	5	—	—	—	—	—	100	—	5	5,000
9-Aug-99	LGAC-1 INF	20	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	20	ND(0.5)	NA
9-Aug-99	LGAC-1 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
9-Aug-99	LGAC-2 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
11-Aug-99	LGAC-1 INF	70	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	70	ND(0.5)	NA
11-Aug-99	LGAC-2 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
16-Aug-99	LGAC-1 INF	160	ND(I)	5	ND(I)	4	ND(I)	NA	9	169	0.6	NA
16-Aug-99	LGAC-2 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
23-Aug-99	LGAC-1 INF	160	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	160	ND(0.5)	NA
23-Aug-99	LGAC-2 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
30-Aug-99	LGAC-1 INF	170	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	170	ND(0.5)	NA
30-Aug-99	LGAC-2 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
7-Sep-99	LGAC-1 INF	140	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	140	ND(0.5)	NA
7-Sep-99	LGAC-1 EFF	20	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	20	ND(0.5)	NA
7-Sep-99	LGAC-2 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
15-Oct-99	LGAC-1 INF	110	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	110	5.1	NA
15-Oct-99	LGAC-1 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
15-Oct-99	LGAC-2 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
23-Nov-99	LGAC-1 INF	80	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	80	ND(0.5)	NA
23-Nov-99	LGAC-1 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
23-Nov-99	LGAC-2 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
20-Dec-99	LGAC-1 INF	90	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	90	NA	NA
20-Dec-99	LGAC-1 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
20-Dec-99	LGAC-2 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
11-Jan-00	LGAC-1 INF	100	2	11	11	87	38	NA	149	249	1.7	NA
11-Jan-00	LGAC-1 EFF	40	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	40	ND(0.5)	NA
11-Jan-00	LGAC-2 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
24-Feb-00	LGAC-1 INF	90	ND(I)	ND(I)	4	17	7	NA	28	118	ND(0.5)	NA
24-Feb-00	LGAC-1 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
24-Feb-00	LGAC-2 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
17-Mar-00	LGAC-1 INF	130	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	130	ND(0.5)	NA
17-Mar-00	LGAC-1 EFF	60	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	60	ND(0.5)	NA
17-Mar-00	LGAC-2 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
6-Apr-00	LGAC-1 INF	90	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	90	ND(0.5)	NA
6-Apr-00	LGAC-1 EFF	70	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	70	ND(0.5)	NA
6-Apr-00	LGAC-2 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
5-May-00	LGAC-1 INF	ND(100)	10	40	620	2,000	650	NA	3,320	3,320	0.8	NA
5-May-00	LGAC-1 EFF	10	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	NA	ND	10	ND(0.5)	NA
5-May-00	LGAC-2 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
20-Jun-00	LGAC-1 INF	160	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	160	ND(0.5)	NA
20-Jun-00	LGAC-1 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
20-Jun-00	LGAC-2 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
19-Jul-00	LGAC-1 INF	110	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	110	ND(0.5)	NA
19-Jul-00	LGAC-1 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
19-Jul-00	LGAC-2 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
16-Aug-00	LGAC-1 INF	120	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	120	ND(0.5)	NA
16-Aug-00	LGAC-1 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
16-Aug-00	LGAC-2 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
19-Sep-00	LGAC-1 INF	160	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	160	ND(0.5)	NA
19-Sep-00	LGAC-1 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
19-Sep-00	LGAC-2 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
13-Oct-00	LGAC-1 INF	160	ND(I)	ND(I)	3	20	6	NA	29	189	1.3	NA
13-Oct-00	LGAC-1 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
13-Oct-00	LGAC-2 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
14-Nov-00	LGAC-1 INF	70	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	70	0.9	NA
14-Nov-00	LGAC-1 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
14-Nov-00	LGAC-2 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND	ND(0.5)	NA
5-Dec-00	LGAC-1 INF	120	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND(0.5)	NA
5-Dec-00	LGAC-1 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND(0.5)	NA
5-Dec-00	LGAC-2 EFF	ND(10)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	ND(I)	NA	ND	ND(0.5)	NA

**TABLE I**  
**AQUEOUS PHASE SYSTEM SAMPLING SUMMARY**  
**MR. MIKE'S MOBIL**  
**1274 MAIN STREET**  
**ASHBY, MASSACHUSETTS**  
**NPDES REFERENCE #99-193**

Date	Sample ID	USEPA Method 8021B (ug/L) (NOTE: Samples after 5/15/01 by USEPA Method 8260B)							USEPA Method 8100M (mg/L) TPH	USEPA Method 8015 GRO (ug/L)	USEPA Method 160.2 (mg/L) TSS	
		Methyl-t-butyl ether (MTBE)	Benzene	Toluene	Ethylbenzene	m-p-Xylene	o-Xylene	Naphthalene	Total BTEX	Total & MTBE		
NPDES Exclusion Discharge Limit		70	5	--	--	--	--	--	100	--	5	5,000
10-Jan-01	LGAC-1 INF	ND(100)	ND(10)	ND(10)	30	310	10	NA	350	350	3.4	NA
10-Jan-01	LGAC-1 EFF	20	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	NA	ND	20	ND(0.5)	NA
10-Jan-01	LGAC-2 EFF	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	NA	ND	ND	ND(0.5)	NA
22-Feb-01	LGAC-1 INF	130	ND(1)	ND(1)	16	68	5	NA	89	219	ND(0.5)	NA
22-Feb-01	LGAC-1 EFF	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	NA	ND	ND	ND(0.5)	NA
22-Feb-01	LGAC-2 EFF	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	NA	ND	ND	ND(0.5)	NA
16-Mar-01	LGAC-1 INF	120	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	NA	ND	120	ND(0.5)	NA
16-Mar-01	LGAC-1 EFF	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	NA	ND	ND	ND(0.5)	NA
16-Mar-01	LGAC-2 EFF	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	NA	ND	ND	ND(0.5)	NA
27-Apr-01	LGAC-1 INF	91	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND	91	ND(0.5)	NA
27-Apr-01	LGAC-1 EFF	52	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND	52	ND(0.5)	NA
27-Apr-01	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND	ND(2)	ND(0.5)	NA
15-May-01	LGAC-1 INF	87	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND	87	ND(0.5)	NA
15-May-01	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND	ND(2)	ND(0.5)	NA
15-May-01	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND	ND(2)	ND(0.5)	NA
12-Jun-01	LGAC-1 INF	100	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	100	ND(0.5)	NA
12-Jun-01	LGAC-1 EFF	4	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	4	ND(0.5)	NA
12-Jun-01	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	ND	ND(0.5)	NA
11-Jul-01	LGAC-1 INF	86	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	86	0.14	NA
11-Jul-01	LGAC-1 EFF	32	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	32	ND(0.05)	NA
11-Jul-01	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	ND	ND(0.05)	NA
6-Aug-01	LGAC-1 INF	96	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	96	ND(0.3)	NA
6-Aug-01	LGAC-2 INF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	ND	ND(0.3)	NA
6-Aug-01	LGAC-2 EFF	28	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	28	ND(0.3)	NA
26-Sep-01	LGAC-1 INF	97	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	97	ND(0.15)	NA
26-Sep-01	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	ND	ND(0.15)	NA
26-Sep-01	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	ND	ND(0.15)	NA
23-Oct-01	LGAC-1 INF	100	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	100	ND(0.15)	NA
23-Oct-01	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	ND	ND(0.15)	NA
23-Oct-01	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	ND	ND(0.15)	NA
14-Nov-01	LGAC-1 INF	96	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	96	ND(0.15)	NA
14-Nov-01	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	ND	ND(0.15)	NA
14-Nov-01	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	ND	ND(0.15)	NA
9-Dec-01	LGAC-1 INF	98	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	98	0.12	NA
9-Dec-01	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	ND	ND(0.15)	NA
9-Dec-01	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	ND	ND(0.15)	NA
29-Jan-02	LGAC-1 INF	93	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	93	ND(0.15)	NA
29-Jan-02	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	ND	ND(0.15)	NA
29-Jan-02	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	ND	ND(0.15)	NA
26-Feb-02	LGAC-1 INF	79	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	79	ND(0.15)	NA
26-Feb-02	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	ND	ND(0.15)	NA
26-Feb-02	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	ND	ND(0.15)	NA
28-Mar-02	LGAC-1 INF	80	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	80	ND(0.15)	NA
28-Mar-02	LGAC-1 EFF	51	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	51	ND(0.15)	NA
28-Mar-02	LGAC-2 EFF	20	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	20	ND(0.15)	NA
25-Apr-02	LGAC-1 INF	72	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	72	ND(0.15)	NA
25-Apr-02	LGAC-1 EFF	3	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	3	ND(0.15)	NA
25-Apr-02	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	ND	ND(0.15)	NA
6-May-02	LGAC-1 INF	93	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	93	ND(0.15)	NA
6-May-02	LGAC-1 EFF	6	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	6	ND(0.15)	NA
6-May-02	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	ND	ND(0.15)	NA
20-Jun-02	LGAC-1 INF	94	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	94	ND(0.15)	NA
20-Jun-02	LGAC-1 EFF	18	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	18	ND(0.15)	NA
20-Jun-02	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	NA	ND	ND	ND(0.15)	NA
8-Jul-02	LGAC-1 INF	88	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND	88	ND(0.15)	NA
8-Jul-02	LGAC-1 EFF	14	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND	14	ND(0.3)	NA
8-Jul-02	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND	ND	ND(0.15)	NA
											24	

**TABLE I**  
**AQUEOUS PHASE SYSTEM SAMPLING SUMMARY**  
**MR. MIKE'S MOBIL**  
**1274 MAIN STREET**  
**ASHBY, MASSACHUSETTS**  
**NPDES REFERENCE #99-193**

USEPA Method 8021B (ug/L) (NOTE: Samples after 5/15/01 by USEPA Method 8260B)										USEPA Method 8100M (mg/L) TPH	USEPA Method 8015 GRO (ug/L)	USEPA Method 160.2 (mg/L) TSS	
Date	Sample ID	Methyl-t-butyl ether (MTBE)	Benzene	Toluene	Ethylbenzene	m-p-Xylene	o-Xylene	Naphthalene	Total BTEX	Total BTEX & MTBE			
NPDES Exclusion Discharge Limit		70	5	—	—	—	—	—	100	—	5	5,000	—
5-Aug-02	LGAC-1 INF	98	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND	98	93	NA	258
5-Aug-02	LGAC-1 EFF	2	ND(2)	ND(2)	ND(2)	7	17	15	ND(2)	39	41	NA	NA
5-Aug-02	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND	ND	ND(0.15)	NA	ND (20)
26-Sep-02	LGAC-1 INF	99	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND	99	ND(0.15)	NA	ND (20)
26-Sep-02	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND	ND	NA	NA	NA
26-Sep-02	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND	ND	ND(0.15)	NA	34
17-Oct-02	LGAC-1 INF	130	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND	130	ND(0.15)	NA	ND(20)
17-Oct-02	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND	ND	NA	NA	NA
17-Oct-02	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND	ND	ND(0.17)	NA	26
22-Jan-03	LGAC-1 INF	73	ND(2)	ND(2)	5	16	3	ND(5)	24	97	NA	200	30
22-Jan-03	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	4	ND(2)	ND(5)	4	4	NA	NA	NA
22-Jan-03	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	ND	NA	ND(200)	ND(20)
19-Feb-03	LGAC-1 INF	73	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	73	ND(0.05)	NA	ND(20)
19-Feb-03	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	ND	NA	NA	NA
19-Feb-03	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	ND	ND(0.05)	NA	ND(20)
7-Mar-03	LGAC-1 INF	58	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	58	NA	ND(200)	ND(20)
7-Mar-03	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	ND	NA	NA	NA
7-Mar-03	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	ND	NA	ND(200)	ND(20)
21-Apr-03	LGAC-1 INF	84	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	84	NA	ND(200)
21-Apr-03	LGAC-1 EFF	21	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	21	NA	NA
21-Apr-03	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	ND	NA	ND(200)	20
15-May-03	LGAC-1 INF	71	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	71	NA	ND(200)
15-May-03	LGAC-1 EFF	26	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	26	NA	NA
15-May-03	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	NA	ND(200)	30
25-Jun-03	LGAC-1 INF	71	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	71	NA	ND(200)
25-Jun-03	LGAC-1 EFF	46	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	46	NA	NA
25-Jun-03	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	NA	ND(200)	26
9-Jul-03	LGAC-1 INF	78	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	78	NA	ND(200)
9-Jul-03	LGAC-1 EFF	58	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	58	NA	NA
9-Jul-03	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	NA	ND(200)	20
8-Aug-03	LGAC-1 INF	100	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	100	NA	ND(200)
8-Aug-03	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	ND	NA	NA
8-Aug-03	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	NA	ND(200)	ND(20)
30-Sep-03	LGAC-1 INF	61	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	61	NA	ND(200)
30-Sep-03	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	NA	NA	NA
30-Sep-03	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	NA	ND(200)	ND(20)
24-Oct-03	LGAC-1 INF	65	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	65	NA	ND(200)
24-Oct-03	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	ND	NA	NA
24-Oct-03	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	NA	ND(200)	ND(20)
18-Nov-03	LGAC-1 INF	62	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	62	NA	ND(200)
18-Nov-03	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	ND	NA	NA
18-Nov-03	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	NA	ND(200)	ND(20)
17-Dec-03	LGAC-1 INF	95	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	95	NA	ND(200)
17-Dec-03	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	NA	NA	NA
17-Dec-03	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	NA	ND(200)	ND(20)
21-Jan-04	LGAC-1 INF	63	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	63	NA	ND(200)
21-Jan-04	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	ND	NA	NA
21-Jan-04	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	NA	ND(200)	24
25-Feb-04	LGAC-1 INF	63	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	63	NA	ND(200)
25-Feb-04	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	ND	NA	NA
25-Feb-04	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	NA	ND(200)	ND(20)
18-Mar-04	LGAC-1 INF	66	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	66	NA	ND(200)
18-Mar-04	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	ND	NA	NA
18-Mar-04	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	NA	ND(200)	ND(20)
12-Apr-04	LGAC-1 INF	77	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	77	NA	ND(100)
12-Apr-04	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	ND	NA	NA
12-Apr-04	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	NA	ND(100)	ND(20)
5-May-04	LGAC-1 INF	72	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	72	NA	ND(200)
5-May-04	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	ND	NA	NA
5-May-04	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	NA	ND(200)	ND(20)

**TABLE 1**  
**AQUEOUS PHASE SYSTEM SAMPLING SUMMARY**  
**MR. MIKE'S MOBIL**  
**1274 MAIN STREET**  
**ASHBY, MASSACHUSETTS**  
**NPDES REFERENCE #99-193**

USEPA Method 8021B (ug/L) (NOTE: Samples after 5/15/01 by USEPA Method #260B)										USEPA Method 8100M (mg/L) TPH	USEPA Method 8015 GRO (ug/L)	USEPA Method 160.2 (mg/L) TSS	
Date	Sample ID	Methyl-t-butyl ether (MTBE)	Benzene	Toluene	Ethylbenzene	m-Xylene	o-Xylene	Naphthalene	Total BTEX	Total & MTBE			
NPDES Exclusion	Discharge Limit	70	5	---	---	---	---	---	100	---	5	3,000	---
22-Jun-04	LGAC-1 INF	71	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	71	NA	ND(200)	28
22-Jun-04	LGAC-1 EFF	2	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	2	NA	NA	NA
22-Jun-04	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND	ND	NA	ND(200)	25
15-Jul-04	LGAC-1 INF	76	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(5)	76	NA	ND(200)	ND(20)
15-Jul-04	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(5)	ND	NA	NA	NA
15-Jul-04	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(5)	ND	NA	ND(200)	ND(20)
20-Aug-04	LGAC-1 INF	65	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(5)	65	NA	ND(200)	25
20-Aug-04	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(5)	ND	NA	NA	NA
20-Aug-04	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(5)	ND	NA	ND(200)	ND(20)
27-Sep-04	LGAC-1 INF	87	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(5)	87	NA	ND(200)	ND(20)
27-Sep-04	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(5)	ND	NA	NA	NA
27-Sep-04	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(5)	ND	NA	ND(200)	ND(20)
29-Oct-04	LGAC-1 INF	80	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(5)	80	NA	ND(200)	ND(20)
29-Oct-04	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(5)	ND	NA	NA	NA
29-Oct-04	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(5)	ND	NA	ND(200)	24
11-Nov-04	LGAC-1 INF	120	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(5)	120	NA	ND(200)	ND(20)
11-Nov-04	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(5)	ND	NA	NA	NA
11-Nov-04	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(5)	ND	NA	ND(200)	ND(20)
20-Dec-04	LGAC-1 INF	55	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(5)	55	NA	ND(200)	24
20-Dec-04	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(5)	ND	NA	NA	NA
20-Dec-04	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(5)	ND	NA	ND(200)	27
19-Jan-05	LGAC-1 INF	72	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	72	NA	ND(200)	ND(20)
19-Jan-05	LGAC-1 EFF	4	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	4	NA	NA	NA
19-Jan-05	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	ND	NA	ND(200)	27
16-Feb-05	LGAC-1 INF	79	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	79	NA	ND(200)	ND(20)
16-Feb-05	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	ND	NA	NA	NA
16-Feb-05	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	ND	NA	ND(200)	ND(20)
3-Mar-05	LGAC-1 INF	72	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	72	NA	ND(200)	34
3-Mar-05	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	ND	NA	ND(200)	NA
3-Mar-05	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	ND	NA	ND(200)	ND(20)
29-Apr-05	LGAC-1 INF	62	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	62	NA	ND(200)	ND(20)
29-Apr-05	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	ND	NA	NA	NA
29-Apr-05	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	ND	NA	ND(200)	78
16-May-05	LGAC-1 INF	56	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	56	NA	ND(200)	ND(20)
16-May-05	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	ND	NA	NA	NA
16-May-05	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	ND	NA	ND(200)	21
23-Jun-05	LGAC-1 INF	85	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	85	NA	ND(200)	ND(20)
23-Jun-05	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	ND	NA	NA	NA
23-Jun-05	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	ND	NA	ND(200)	31
14-Jul-05	LGAC-1 INF	78	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	78	NA	ND(200)	ND(20)
14-Jul-05	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	ND	NA	NA	NA
14-Jul-05	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	ND	NA	ND(200)	22
17-Aug-05	LGAC-1 INF	67	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	67	NA	ND(200)	ND(20)
17-Aug-05	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	ND	NA	NA	NA
17-Aug-05	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	ND	NA	ND(200)	ND(20)
20-Sep-05	LGAC-1 INF	110	ND(2)	ND(2)	5	17	3	ND(5)	ND(2)	135	NA	ND(200)	34
20-Sep-05	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	ND	NA	NA	NA
20-Sep-05	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	ND	NA	ND(200)	38
27-Oct-05	LGAC-1 INF	65	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	65	NA	ND(200)	ND(20)
27-Oct-05	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	ND	NA	NA	NA
27-Oct-05	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	ND	NA	ND(200)	ND(20)
21-Nov-05	LGAC-1 INF	67	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	67	NA	ND(200)	ND(20)
21-Nov-05	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	ND	NA	NA	NA
21-Nov-05	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	ND	NA	ND(200)	20
5-Dec-05	LGAC-1 INF	51	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	51	NA	ND(200)	ND(20)
5-Dec-05	LGAC-1 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	ND	NA	NA	NA
5-Dec-05	LGAC-2 EFF	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(5)	ND(2)	ND	NA	ND(200)	ND(20)

**Notes:**

NPDES-National Pollutant Discharge Elimination System.

ug/L-Microgram per liter.

mg/L-Milligrams per liter.

LGAC-Liquid phase granular activated carbon.

NA - Not analyzed for this parameter.

ND(x) - Constituent detected below laboratory method detection limits.

BTEX - Consists of benzene, toluene, ethylbenzene, and total xylenes.

TPH - total petroleum hydrocarbons; TSS - total suspended solids; GRO - gasoline range organics; EPH - extractable petroleum hydrocarbons; VPH - volatile petroleum hydrocarbons.

USEPA - United States Environmental Protection Agency.

-- - Not Applicable.

LGAC-1 INF- Influent water sample taken before primary liquid granular activated carbon unit.

LGAC-1 EFF- Midpoint water sample taken between liquid granular activated carbon units.

LGAC-1 EFF is the same sample location as LGAC-2 INF.

LGAC-2 EFF- Effluent water sample taken after secondary liquid granular activated carbon unit.

**GRAPH 6**  
**VOCs Removed By The Ground Water Treatment System**  
**Mr. Mike's Mobil**  
**1274 Main Street**  
**Ashby, Massachusetts**

